

On linyphiid spiders (Araneae) from the Eastern and Central Mediterranean kept at the Muséum d'histoire naturelle, Geneva

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On linyphiid spiders (Araneae) from the Eastern and Central Mediterranean kept at the Muséum d'histoire naturelle, Geneva. - Ten species are described as new: *Araeoncus cypriacus* sp. n., *A. rhodes* sp. n., *Archaraeoncus hebraeus* sp. n., *Improphantes cypriot* sp. n., *I. turok* sp. n., *Jacksonella bidens* sp. n., *Megalephyphantes globularis* sp. n., *Stemonyphantes serratus* sp. n., *Troxochrus apertus* sp. n., and *Typhochrestus ikarianus* sp. n. Three new synonyms are established: *Erigone simillima* Keyserling, 1886 syn. n., *E. zographica* Crosby & Bishop, 1928 syn. n. and *E. viabilis* Chamberlin & Ivie, 1933 syn. n. = *E. cristatopalpus* Simon, 1884. A new combination is proposed: *Tapinocyba silvestris* Georgescu, 1973 = *Crosbyarachne silvestris* (Georgescu, 1973) comb. n. The previously unknown female of *Gongylidiellum orduense* Wunderlich, 1995 is described. Some misidentifications are corrected: some material from Austria labeled as *E. cristatopalpus* actually refers to *E. tenuimana* Simon, 1884; a male from Mongolia identified as *E. zographica/tirolensis* belongs to *E. whymperi* O. P.-Cambridge, 1877; a record of *Gonatium hilare* (Thorell, 1875) from Sakhalin, Russia actually refers to *G. nipponicum* Millidge, 1981, thus the known distribution of *G. hilare* is restricted to Europe. A distribution pattern is indicated for several species.

Keywords: Arachnida - Linyphiidae - new species - new synonyms - new combination - new records.

INTRODUCTION

Examining of the extensive undetermined spider collections from different regions of Europe and Asia in the Muséum d'histoire naturelle, Geneva (MHNG) revealed many new or little-known species. This paper is devoted to the linyphiids collected from some eastern, central European and Near Eastern countries, i.e., territories belonging to the Eastern and Central Mediterranean Region. The following list contains species which are new for science, are interesting and little-known, or are new to the fauna of that region.

MATERIAL AND METHODS

This paper is based on spider material kept at the MHNG and collected from Cyprus, Greece, Israel, Italy, Jordan, Lebanon, Malta, and Turkey. Some paratypes and

non-type specimens are deposited in the collection of the Zoological Museum of the Moscow State University, Moscow, Russia. Collection numbers are given in square brackets.

The chaetotaxy of Erigoninae is given in a formula (e.g., 2.2.1.1) which refers to the number of dorsal spines on tibiae I-IV. In Micronetinae, the chaetotaxy is given in a different formula, e.g., Ti I: 2-1-1-2(1), which means that tibia I has two dorsal spines, one pro-, one retrolateral spine, and two or one ventral spine (the apical spines are disregarded). The sequence of leg segment measurements is as follows: femur + patella + tibia + metatarsus + tarsus. All measurements are given in mm. All scale lines in the figures correspond to 0.1 mm unless indicated otherwise.

The terminology of genitalic structures in Micronetinae follows that of Saaristo & Tanasevitch (1996), in Erigoninae it mainly follows that of Hormiga (2000).

ABBREVIATIONS

AMNH	American Museum of Natural History, New York, U.S.A.
ARP	Anterior radical process
ATA	Anterior tegular apophysis
BMNH	Burke Museum of Natural History and Culture, Seattle, U.S.A.
Ca	Carina
CAT	Personal collection of Andrei Tanasevitch, Moscow, Russia
DA	Dorsal apophysis
DP	Dorsal plate
DPS	Distal part of scape
DSA	Distal suprategular apophysis
E	Embolus
EP	Embolus proper
L	Lamella characteristic
MHNG	Muséum d'histoire naturelle, Geneva, Switzerland
MM	Median membrane
MNHNP	Muséum national d'Histoire naturelle, Paris, France
MT	Mesal tooth
PCB	Personal collection of Don Buckle, Saskatoon, Canada
PMP	Posterior median plate
PT	Posterior tooth
R	Radix
RA	Radical apophysis
Re	Receptacle
RP	Radical part of embolic division
SMF	Senckenberg Museum, Frankfurt a. M., Germany
SS	Serrate surface
TA	Terminal apophysis
Th	Thumb
USNM	National Museum of Natural History, Smithsonian Institution, Washington, DC, U.S.A.
ZMMU	Zoological Museum of the Moscow State University, Moscow, Russia

RESULTS

Acartauchenius scurrilis (O. P.-Cambridge, 1872)

MATERIAL: 1 ♂, 1 ♀, Greece, Epirus, environs of Igoumenitsa, under stones, 25.III.1978, leg. S. Vit [1].

REMARKS: This species is here reported for the first time for the Greek fauna.

RANGE: European-Ancient Mediterranean.

Alioranus pastoralis (O. P.-Cambridge, 1872)

MATERIAL: 1 ♂, Cyprus, Troodos Mts, Cedar Valley, near camping, 1100 m a.s.l., under stones, 18.XI.1991, leg. B. Hauser [ZS-91/20]. – 1 ♂, E of Küçükörenköy, Olea plantation, 16.IV.1998, leg. S. Vit [98-24c]. – 1 ♀, Greece, Rhodes, Petaloudes, near pond, 15.IV.1977, leg. C. Besuchet [17a]. – 1 ♀, Turkey, Bornova, near Izmir, litter, 20.V.1974, leg. T. Jaccoud. – 1 ♂, Jordan, Wadi Schaib, 15.III.1968, leg. J. & S. Klapperich.

REMARKS: This species is here reported for the first time for the Turkish and Jordanian faunas.

RANGE: East Mediterranean.

Allotiso lancearius (Tanasevitch, 1987)

MATERIAL: 24 ♀; 5 ♀ (ZMMU), Turkey, SW of Artvin, 1900 m a.s.l., pasture in *Fagus* & *Picea* forest, under stones. 9.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [10a]. – 1 ♀, same locality, 1900 m a.s.l., sifting litter under *Fagus* & *Rhododendron*, 9.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [10d]. – 1 ♀, same locality, 1500 m a.s.l., *Fagus* & *Picea* forest with *Rhododendron*, sifting litter, 9.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [11b].

REMARKS: This species was hitherto known from the Caucasus only (Tanasevitch, 1987, 1990). It is here reported for the first time for the Turkish fauna.

RANGE: Caucasian.

Araeoncus cypriacus sp. n.

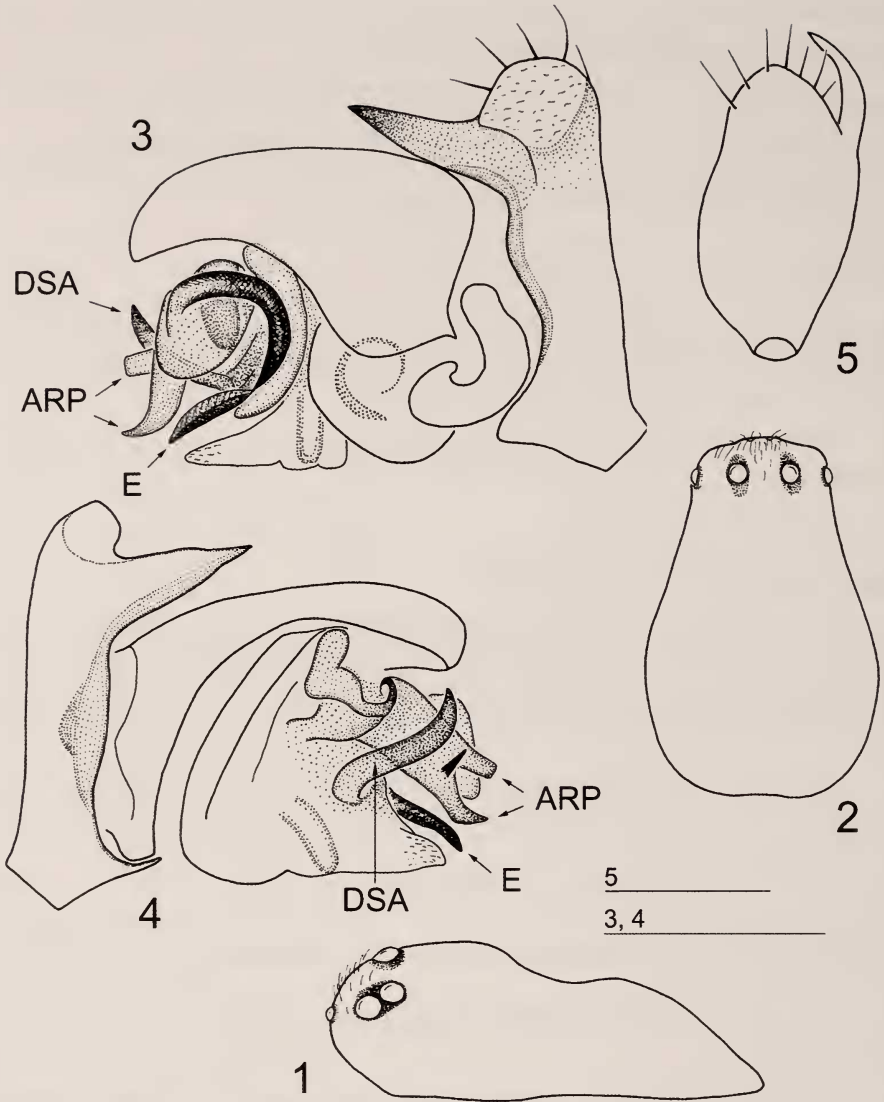
Figs 1-5

HOLOTYPE: ♂. Cyprus, Baths of Aphrodite, sifting leaf litter in ravine, 22.VIII.1977, leg. C. Besuchet [38].

ETYMOLOGY: The specific name, an adjective, is derived from the name of the island of origin.

DIAGNOSIS: The species is characterised by the shape of two anterior radical processes of the embolic division.

DESCRIPTION: Male. Total length 1.57. Carapace slightly modified as in Figs 1 & 2, 0.85 long, 0.55 wide, reddish brown. Chelicerae 0.25 long. Legs pale brown. Leg I 1.88 long (0.52+0.17+0.45+0.42+0.32), IV 1.97 long (0.55+0.17+0.50+0.45+0.30). Chaetotaxy: 2.2.1.1, spines very thin, their length about diameter of tibia. TmI 0.43. Metatarsus IV without trichobothrium. Palp (Figs 3-5): Cymbium with a long, pointed, slightly curved prolateral outgrowth. Paracymbium relatively small, hook-shaped. Distal suprategular apophysis like a long, narrow, slightly curved stripe. Embolic division complex in shape, with two anterior radical processes: one long, curved and pointed distally, other one short and blunt. A spear-shaped tooth present near base of



FIGS 1-5

Araeoncus cypriacus sp. n., ♂ holotype. (1, 2) Carapace, lateral and dorsal view, respectively. (3, 4) Left palp, retrolateral and prolateral view, respectively. (5) Palpal tibia, dorsal view.

anterior radical processes. Embolus circle-shaped. Abdomen 0.75 long, 0.55 wide, grey.

Female unknown.

TAXONOMIC REMARKS: The new species seems to be most similar to *A. rhodes* sp. n., see below.

DISTRIBUTION: Known from the type locality only.

Araeoncus rhodes sp. n.

Figs 6-12, 20

HOLOTYPE: ♂, Greece, Rhodes, Petaloudes, sifting leaf litter, 8.IV.1977, leg. C. Besuchet [2b].

PARATYPE: 1 ♀, from same locality, collected together with the holotype.

TYPE MATERIAL EXAMINED FOR COMPARISON: MNHNP AR 12101. A vial labeled as "#6421 *Streptosphaenus culminicola* (*Diplocephalus* c.), Pic du Midi, E. Simon", contains 3 ♂ and 1 ♀ (a carapace and an abdomen, separated). Most probably, the female was placed into the syntype series later, as in fact Simon (1884) described *D. culminicola* only from males, and a female was described much later by Denis (1953). Denis's illustrations of the epigyne do not correspond to the epigyne of the female from Paris Museum, so the female in vial AR 12101 may not belong to *D. culminicola*.

ETYMOLOGY: The specific name, a noun, is derived from the name of the Greek Island where the new species was found.

DIAGNOSIS: The species is characterised by the shape of the anterior radical processes of the embolic division in the male, as well as by the peculiar shape of well visible translucent oblong receptacles in the female.

DESCRIPTION: Male. Total length 1.85. Carapace slightly modified as in Figs 6 & 7, 0.95 long, 0.62 wide, reddish brown. Chelicerae 0.27 long. Legs pale brown. Leg I 2.17 long (0.60+0.20+0.52+0.50+0.35), IV 2.29 long (0.65+0.20+0.60+0.52+0.32). Chaetotaxy: 2.2.1.1, spines length on TiI-III about 0.3-0.5 diameter of segment, on TiIV about diameter or a bit longer. TmI 0.43. Metatarsus IV without trichobothrium. Palp (Figs 8-12): Cymbium with a long, pointed, slightly curved prolateral outgrowth. Paracymbium relatively small, hook-shaped. Distal suprategular apophysis like a long, narrow, slightly curved band, pointed distally. Embolic division with two distal anterior radical processes almost equal in size to each other. Embolus relatively short and thick. Abdomen 0.87 long, 0.62 wide, grey.

Female. Total length 2.00. Carapace 0.80 long, 0.60 wide. Chelicerae 0.35 long. Leg I 2.09 long (0.60+0.17+0.50+0.47+0.35), IV 2.21 long (0.65+0.22+0.57+ 0.47+0.30). Length of spines on legs about of 1-1.5 diameter of segment. TmI 0.47. Abdomen 1.27 long, 1.00 wide. Epigyne typical for representatives of *Araeoncus* Simon, 1884, with well visible translucent oblong receptacles as in Fig. 20. Body and leg coloration, as well as chaetotaxy, as in male.

TAXONOMIC REMARKS: The new species seems to be most similar to *A. cypriacus* sp. n., but differs well by the shorter and thicker embolus, as well as by the shape of the anterior radical processes. The female can be easily distinguished by the peculiar shape of the well visible translucent oblong receptacles. The male carapace is very similar to that of *Diplocephalus culminicola* Simon, 1884, the palp of which has not yet been illustrated. The shape of the palpal tibia of *D. culminicola* is very similar to that of *Dactylopisthes mirificus* (Georgescu, 1976), and to the representatives of *Archaraeoncus* Tanasevitch, 1987, but the palpal conformation of *D. culminicola* is fully corresponding to that of *Diplocephalus* Bertkau, 1883.

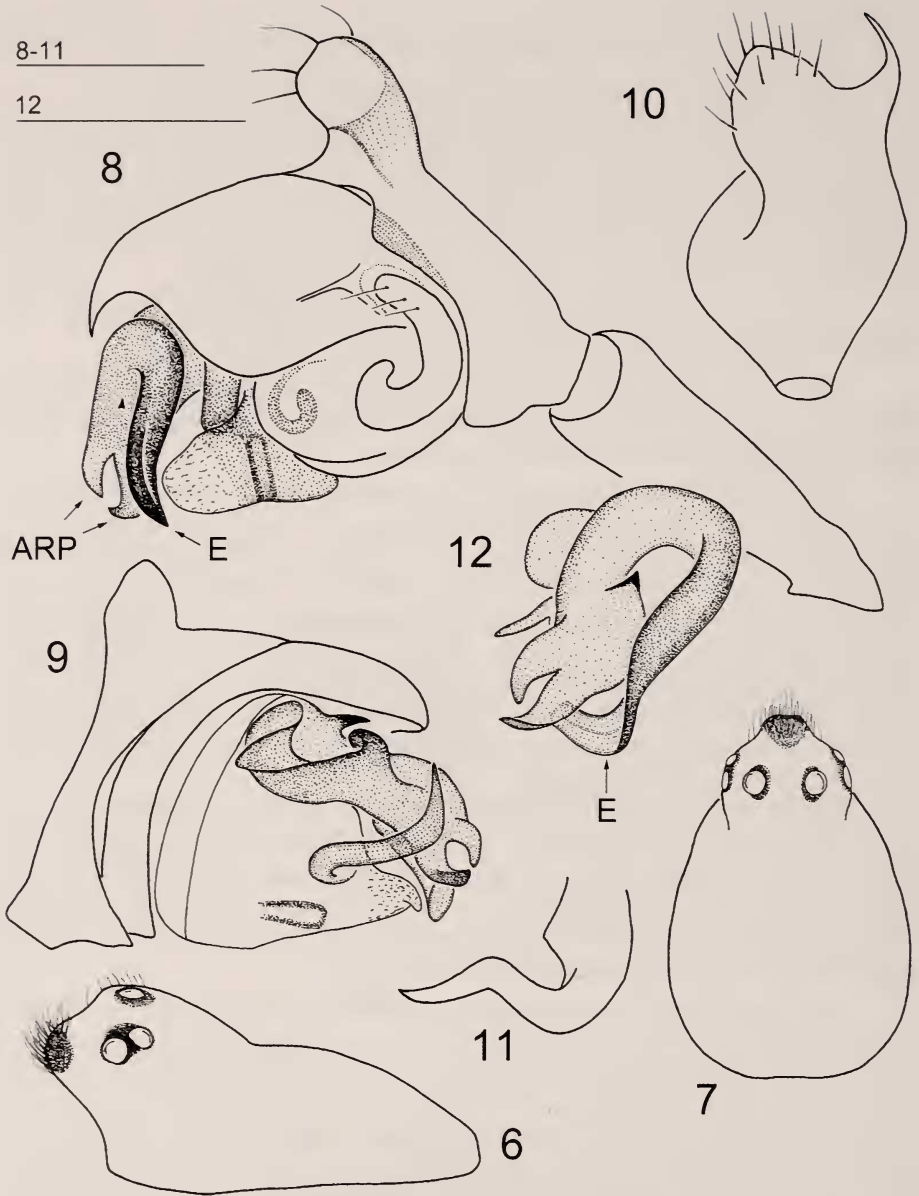
DISTRIBUTION: Known from the type locality only.

Archaraeoncus hebraeus sp. n.

Figs 13-19, 21

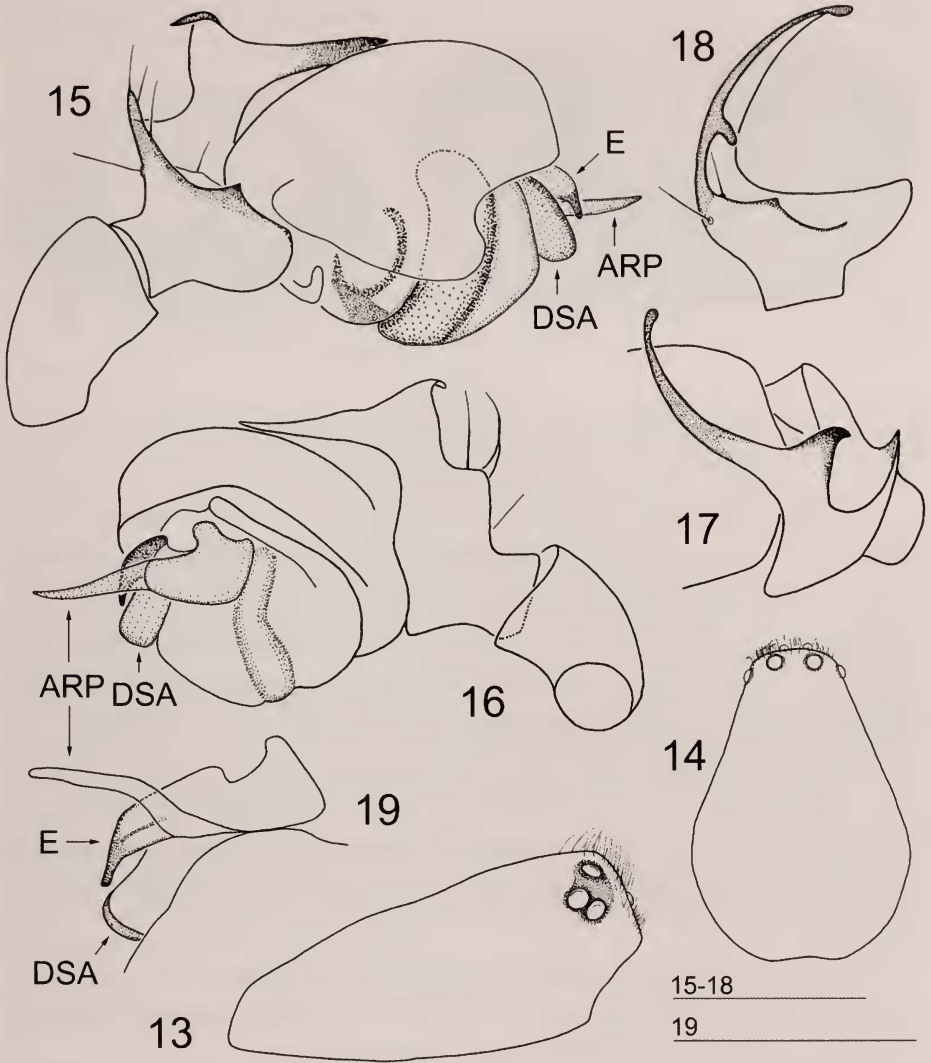
HOLOTYPE: ♂, Israel, Maize, Neue Yaar, summer 1986, leg. S. Heimer.

PARATYPE: 1 ♀, Israel, Galilee, Ginosar, on bank of stream, 20.-21.V.1973, leg. I. Löbl [Is-73/1].



FIGS 6-12

Araeoncus rhodes sp. n., ♂ holotype. (6, 7) Carapace, lateral and dorsal view, respectively. (8, 9) Left palp, retrolateral and prolateral view, respectively. (10) Palpal tibia, dorsal view. (11) Distal suprategular apophysis, anterior view. (12) Embolic division, anterior view.



FIGS 13-19

Archaraeoncus hebraeus sp. n., ♂ holotype. (13, 14) Carapace, lateral and dorsal view, respectively. (15, 16) Right palp, retrolateral and prolateral view, respectively. (17, 18) Palpal tibia, prolateral and dorsal view, respectively. (19) Embolic division and distal suprategular apophysis, prolateral view.

ETYMOLOGY: The specific name, an adjective, translated from Latin as "Jewish".

DIAGNOSIS: The new species is characterised by the peculiar shape of the palpal tibia, and by the presence of only one distal suprategular apophysis.

DESCRIPTION: Male. Total length 1.43. Carapace slightly modified as in Figs 13 & 14, 0.67 long, 0.45 wide, brown. Chelicerae 0.22 long. Legs pale brown. Leg I 1.47



FIGS 20, 21

Epigyne of *Araeoncus rhodes* sp. n., ♀ paratype from Petaloudes, Greece (20), and of *Archaraeoncus hebraeus* sp. n., ♀ paratype from Ginosar, Israel (21).

long (0.42+0.15+0.35+0.30+0.25), IV 1.57 long (0.45+0.15+0.40+0.32+0.25). Chaetotaxy: 2.2.1.1, but can be misunderstood as 1.1.1.1, because spines, especially distal ones, scarcely visible. Length of spines on Ti I-III about 0.25-0.30 diameter of segment, on TiIV about 0.5 diameter. TmI 0.42. Metatarsus IV without trichobothrium. Palp (Figs 15-19): Palpal tibia sickle-shaped, with a curved pointed outgrowth on dorsal side. Distal suprategular apophysis relatively short, rounded distally. Embolic division with a long, narrow, spear-shaped anterior radical process, embolus short. Abdomen 0.77 long, 0.55 wide, grey.

Female. Total length 1.34. Carapace 0.65 long, 0.47 wide. Chelicerae 0.20 long. Leg I 1.49 long (0.42+0.17+0.35+0.30+0.25), IV 1.60 long (0.47+0.17+0.40+0.31+0.25). Chaetotaxy: 2.2.1.1, proximal spines about as long as diameter of segment, distal spines half of it. TmI 0.45. Abdomen 0.70 long, 0.50 wide. Epigyne with a small aperture, receptacles spherical, wide apart as shown in Fig. 21. Body and leg coloration as in male.

TAXONOMIC REMARKS: The new species is very similar to *A. prospiciens* (Thorell, 1875), but differs clearly by the presence of only one distal suprategular apophysis, as well as by the peculiar shape of the palpal tibia.

DISTRIBUTION: Known from Israel only.

Araeoncus humilis (Blackwall, 1841)

MATERIAL: 1 ♂, Turkey, Çamlıhemş in, Rize Village, sifting litter, 27.VII.1973, leg. S. Vit [8].

REMARKS: This species is here reported for the first time for the Turkish fauna.

RANGE: European-Ancient Mediterranean.

Asthenargus paganus (Simon, 1884)

MATERIAL: 1 ♂, 6 ♀, Italy, Aosta Valley, Velde, Gressoney, Fontainemore, 1500 m a.s.l., litter under *Alnus viridis*, X.1980, leg. A. Focarile [10].

RANGE: European.

Canariphantes homonymus (Denis, 1934)

Figs 22-26

MATERIAL: 1 ♂, Greece, Euboea, Prokopion, 6.VIII.1979, leg. B. Hauser.

REMARKS: This species was hitherto known from the West Mediterranean: Portugal, France Morocco and Algeria (Bosmans & Bouragba, 1992); it is here reported for the first time for the Greek fauna.

RANGE: Mediterranean.

Caviphantes pseudosaxetorum Wunderlich, 1979MATERIAL: 1 ♀, Lebanon, Jeila, Nahr El Kalb, sifting dry leaf litter under *Platanus* & *Quercus*, 26.III.1975, leg. C. Besuchet [3].COMPARATIVE MATERIAL EXAMINED: SMF 29677, *Caviphantes pseudosaxetorum*, 1 ♀ paratype.

REMARKS: This species was described from Nepal, 2100-2900 m a.s.l. (Wunderlich, 1979), but has a wide geographical range: besides Nepal and Lebanon, it also has been found in northern Pakistan and southern India (Tanasevitch, in preparation). This species is here reported for the first time for the Lebanese fauna.

Centromerus arcanus (O. P.-Cambridge, 1873)

MATERIAL: 1 ♀, Italy, Sestriere, 28.VIII.1967, leg. A. Comellini.

RANGE: West Palaearctic.

Centromerus brevivulvatus Dahl, 1912MATERIAL: 4 ♂, 3 ♀, Italy, Aosta Valley, Velde, Gressoney, Fontainemore, 1500 m a.s.l., litter under *Alnus viridis*, X.1980, leg. A. Focarile [10].

RANGE: West Palaearctic.

Centromerus pabulator (O. P.-Cambridge, 1875)

MATERIAL: 1 ♀, Italy, Toggia Valley, 24.X.1967, leg. A. Comellini.

Centromerus semiater (L. Koch, 1879)

MATERIAL: 1 ♀, Italy, Mt Faloria, Cortina d'Ampezzo, 24.VI.1967, leg. A. Comellini.

RANGE: West Palaearctic.

Centromerus serratus (O. P.-Cambridge, 1875)MATERIAL: 1 ♂, 4 ♀, Italy, Aosta Valley, Porossan, near Aosta, 700 m a.s.l., litter under *Quercus pubescens*, 13.III.1980, leg. A. Focarile [9].

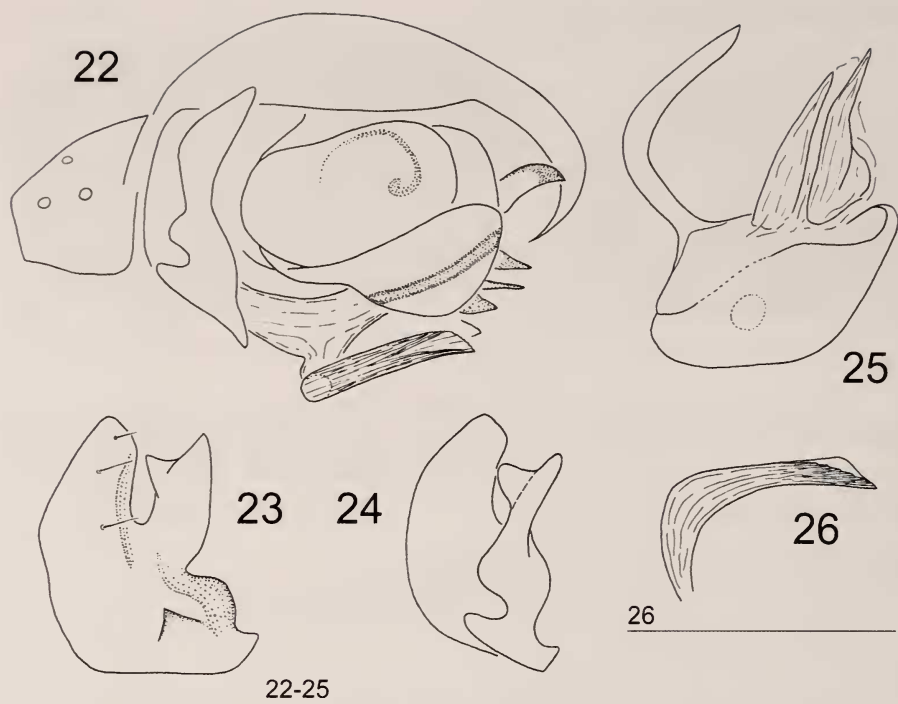
RANGE: Mediterranean.

Ceratinella brevipes (Westring, 1851)

MATERIAL: 1 ♂, 1 ♀ Italy, Mt Mucrone, 27.V.1967, leg. A. Comellini.

RANGE: Palaearctic.

Ceratinella brevis (Wider, 1834)MATERIAL: 1 ♀, Turkey, Kastamonu, Ilgazdag, route Kastamonu - Çankiri, Diphan, 1300 m a.s.l., 17.V.1976, leg. C. Besuchet & I. Löbl [20]. – 1 ♀, environs of Bolu, Omerler, 800 m a.s.l., *Fagus* & *Picea* forest, sifting litter, 21.V.1976, leg. C. Besuchet & I. Löbl [32d]. – 1 ♀,



FIGS 22-26

Canariphantes homonymus (Denis, 1934), ♂ from Prokopion, Greece. (22) Right palp, retro-lateral view. (23, 24) Paracymbium, different aspects. (25) Embolic division. (26) Lamella characteristic.

9 km N of Mengen, route Mengen - Devrek, 750 m a.s.l., *Fagus* & *Picea* forest with *Rhododendron*, sifting litter, 23.V.1979, leg. C. Besuchet & I. Löbl [34].

REMARKS: This species is here reported for the first time for the Turkish fauna.

RANGE: Palearctic.

Cinetata gradata (Simon, 1881)

MATERIAL: 3 ♂, 5 ♀; 1 ♂, 5 ♀ (ZMMU), Italy, S-Tirol, Schnalstal, Mt Katarine, road to Vernatsch, 1350 m a.s.l., timberline, shaking *Juniperus sabina*, 24.X.1989, leg. S. Hauser [BZ-89/3]. – 5 ♀. same locality, shaking *Larix*, 24.X.1989, leg. S. Hauser [BZ-89/5]. – 1 ♂, 6 ♀, same locality, leg. S. Hauser [BZ-89/5].

RANGE: Mediterranean.

Cresmatoneta mutinensis (Canestrini, 1868)

MATERIAL: 1 ♂, Cyprus, Polis, bank of river, sifting litter under *Tamarix* & *Scirpus*, 21.IV.1981, leg. C. Besuchet [32].

REMARKS: This species is here reported for the first time for the Cyprian fauna.

RANGE: Mediterranean.

Crosbyarachne silvestris (Georgescu, 1973) comb. n.

MATERIAL: 7 ♂, 14 ♀; 2 ♂, 2 ♀ (ZMMU), Italy, Tuscany, Mt Argentario, Maremma, 280-400 m a.s.l., sifting litter under *Quercus ilex* & *Q. suber*, 13.-14.II.1980, leg. A. Focarile.

COMPARATIVE MATERIAL EXAMINED: 5 ♂, 1 ♀, Romania, Seica Nare, pitfall, IV.1980, from collection of I. Weiss.

REMARKS: According to the palp and epigyne conformation *Tapinocyba silvestris* Georgescu, 1973 clearly belongs to the genus *Crosbyarachne* Charitonov, 1937 and is similar to its single representative, *C. bukovskyi* Charitonov, 1937, known from the Crimea and Turkey (Gnelitsa, 2009). A comparison between the Italian and Romanian specimens of *C. silvestris* comb. n. has shown their identity, whereas similar specimens from Greece show small but stable differences (see below). This species is here reported for the first time for the Italian fauna.

RANGE: Mediterranean.

Crosbyarachne* aff. *silvestris (Georgescu, 1973)

MATERIAL: 1 ♀, Greece, Thessalie, SW of Mouresi, 750 m a.s.l., road in forest, rocks, in moss, 11.IV.2004, leg. S. Vit [12]. – 1 ♀, same locality, 11.IV.2004, leg. S. Vit [12]. – 1 ♂, W of Makririachi, 500 m a.s.l., fruit garden, litter under *Castanea*, 9.IV.2004, leg. S. Vit [4]. – 1 ♂, 4 ♀, N of Neochorio, 450 m a.s.l., in rotten *Pinus* stub, 2.IV.2004, leg. S. Vit [14]. – 1 ♀, Epirus, E of Neraida, between Igoumenitsa and Loannina, in rotten *Laurus* stub, 25.III.1978, leg. S. Vit [3]. – 1 ♂, Euboea, Mt Dirfis, route Nea Artaki - Stropones, above Stropones, 650 m a.s.l., litter under *Abies cephalonica*, 30.IV.1987, leg. B. Hauser [Ir-87/26]. – 1 ♀, route Nea Artaki - Mantoudion, 600 m a.s.l., litter under *Pinus* & *Quercus*, 1.V.1987, leg. B. Hauser [Ir-87/33].

REMARKS: The male palp of *C. aff. silvestris* from Greece is very similar to that of specimens from the Italian and Romanian populations of *C. silvestris*, but have a slightly longer embolus; females also somewhat differ by vulva arrangement. Noteworthy, a male from Euboea has the embolus of intermediate size, which is a bit shorter than in males from Thessalie or Epirus, but still longer than in the Italian and Romanian populations. Thus, the systematic position of *C. aff. silvestris* from Greece is problematic.

Dactylopisthes digiticeps (Simon, 1881)

MATERIAL: 1 ♂, Turkey, Istanbul, between Yalova and Orhangazi, *Quercus* forest, sifting litter, 11.V.1976, leg. C. Besuchet & I. Löbl [1]. – 1 ♀, Israel, Galilee, Ginosar, on bank of stream, 20.-21.V.1973, leg. I. Löbl [Is-73/1].

REMARKS: This species is here reported for the first time for the Turkish and Israeli faunas.

RANGE: Eastern-Ancient Mediterranean.

Diplocentria bidentata (Emerton, 1882)

MATERIAL: 1 ♀, Italy, Cervinia, 23.V.1967, leg. A. Comellini.

REMARKS: This species is here reported for the first time for the Italian fauna.

RANGE: Holarctic.

Diplocephalus caucasicus Tanasevitch, 1987

MATERIAL: 1 ♂, Turkey, between Hopa and Kemalpaşa, 11 km from Hopa, sifting litter under ferns and blackberry, 10.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [12a].

REMARKS: This species was hitherto known from the Caucasus only (Tanasevitch, 1987, 1990). *D. caucasicus* is here reported for the first time for the Turkish fauna.

RANGE: Anatolian-Caucasian.

***Diplocephalus picinus* (Blackwall, 1841)**

MATERIAL: 1 ♂, Turkey, 10 km from Zonguldak, route Zonguldak - Çaycuma, 500 m a.s.l., *Fagus* forest with *Rhododendron*, sifting litter, 23.V.1976, leg. C. Besuchet & I. Löbl [35]. – 1 ♂, Sinop, above Bektas, 23 km N of Boyabat, route Boyabat - Sinop, 1100 m a.s.l., *Fagus* forest, sifting litter, 20.V.1976, leg. C. Besuchet & I. Löbl [31].

REMARKS: This species is here reported for the first time for the Turkish fauna.

RANGE: West Palaearctic.

***Diplocephalus protuberans* (O. P.-Cambridge, 1875)**

MATERIAL: 4 ♂, 5 ♀, Italy, Sestriere, 28.VIII.1967, leg. A. Comellini.

RANGE: Mediterranean.

***Entelecara acuminata* (Wider, 1834)**

MATERIAL: 1 ♂, Turkey, Kars, 16 km SW of Göle, 1600 m a.s.l., *Quercus* forest, sifting litter and moss, 16.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [24d].

REMARKS: This species is here reported for the first time for the Turkish fauna.

RANGE: West Palaearctic.

***Erigone cristatopalpus* Simon, 1884**

Figs 27-42, 48-52

Erigone simillima Keyserling, 1886 **syn. n.**

E. zographica Crosby & Bishop, 1928 **syn. n.**

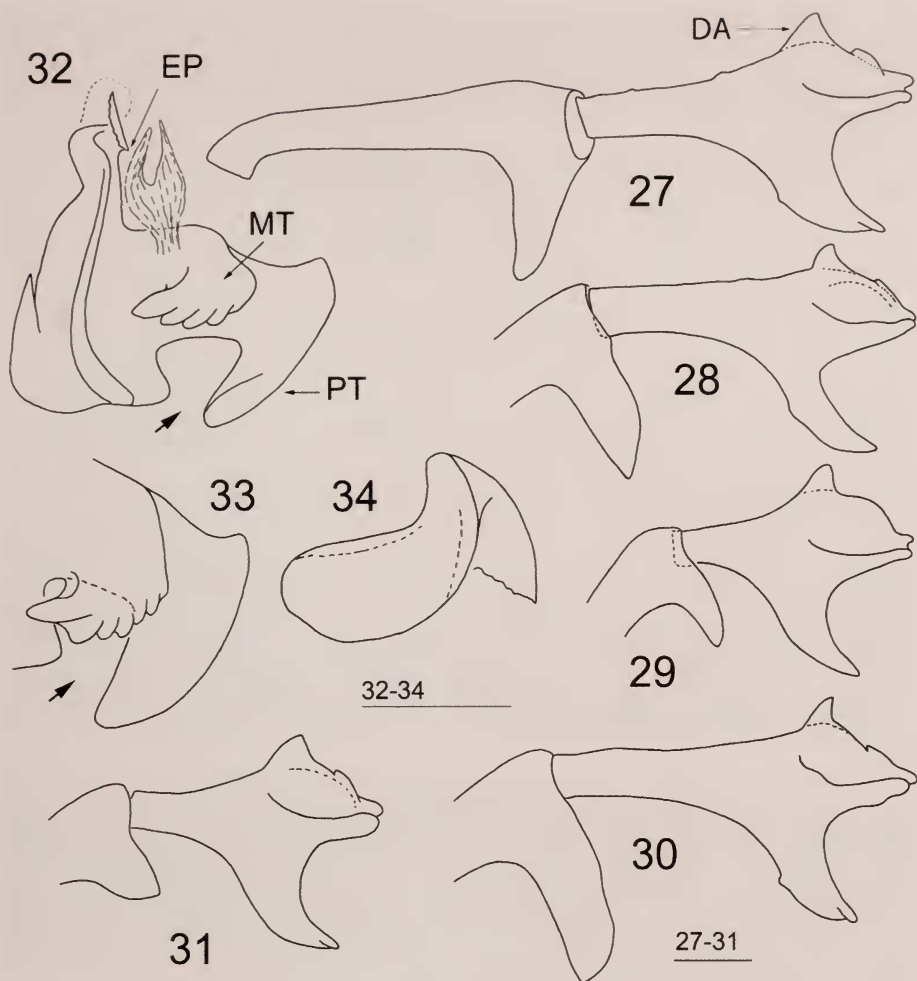
E. viabilis Chamberlin & Ivie, 1933 **syn. n.**

MATERIAL: 1 ♂, 1 ♀, Italy, Falzarego, Cortina d'Ampezzo, 25.VI.1967, leg. A. Comellini. – 19 ♂, 16 ♀; 4 ♂, 4 ♀ (ZMMU), Toggia Valley, 24.X.1967, leg. A. Comellini. – 1 ♂, 2 ♀, Bergamo, Foppolo, 2000 m a.s.l., 24.VI.1977, leg. A. Comellini.

TYPE MATERIAL EXAMINED: *E. cristatopalpus* Simon, 1884, MNHNP AR 12737. A vial labeled as “#4927 *E. cristatopalpus* E. Simon, Alps”, contains syntypes: eight conspecific males and four females of *E. cristatopalpus*, as well as a male of *E. tenuimana* Simon, 1884. Simon (1884) did not designate a holotype and provided the description with two figures of the male palpal tibia. A male of *E. cristatopalpus*, the palpal tibia of which corresponds best to the original figures, I here designate as the lectotype; the other seven males and four females are paralectotypes. The male of *E. tenuimana* is excluded from the type series.

E. tenuimana Simon 1884, MNHNP 4926. The type series of *E. tenuimana* (tube ES #5226) is either lost or mixed with the type series of *E. leptocarpus* (tube ES #4926) (Christophe Hervé, pers. com.). A vial labeled as “#4926, *E. tenuimanus* E. S. (= *leptocarpus*), Alps”, contains eight conspecific males of *E. tenuimana* and a female of *E. cristatopalpus*, which has already been separated by A. Hänggi (Muster & Hänggi, 2009: 990). I designate one of these males as the lectotype, the other seven males are paralectotypes.

E. simillima Keyserling, 1886, USNM 1653. A vial labeled as “TYPE”, A-139, *Erigone simillima* Keyserling (additional labels inside the vial: Coll. Marx #226; USNM #20533/4; #226/3) contains four males. One male is *E. atra* Blackwall, 1833; the three others are conspecific despite their different size. The biggest male is 3.68 mm long, and it corresponds to the specimen mentioned in the original description (3.6 mm); this male I here designate as the



FIGS 27-34

Erigone cristatopalpus Simon, 1884, palp details. (27-31) Right patella and palpal tibia, retro-lateral view. (32) Embolic division. (33) Mesal and posterior tooth of embolic division. (34) Distal suprategular apophysis. (27, 32-34) Specimen from Foppolo, Italy. (29, 30) Specimens from Toggia, Italy. (28, 31) Specimens from Lake Tignes, France.

lectotype. Two other males, paralectotypes, are rather smaller and approximately 2.8-2.9 mm long. The male of *E. atra* is excluded from the type series. Note: the embolus proper in the embolic division of the right palp of the lectotype is broken off.

E. viabilis Chamberlin & Ivie, 1933, AMNH without registration number. A vial labeled as "♂ holotype, ♀ allotype" contains a male and a female, with one palp and the epigyne separated. Note: the dorsal apophysis (sensu Muster & Hänggi, 2009) on the right palpal tibia is broken off or underdeveloped/reduced.

E. zographica Crosby & Bishop, 1928, AMNH without registration number. A vial labeled as "TYPE", contains a male with two palps separated, right one lacks of the embolic division.

COMPARATIVE MATERIAL EXAMINED: *E. cristatopalpus*, 2 ♂, 5 ♀, France, Savoie, Lake Tignes, 2100 m a.s.l., 9.VIII.1965, leg. A. Comellini. – 1 ♂, 1 ♀, same locality and date, leg. A. Comellini. – 2 ♂, 1 ♀, Haute-Savoie, Tête de Jaillet (= Col du Jaillet), southern part of Aravis Mts, summit of Le Petit Croisbaulet with herbs, 2009 m a.s.l., 6.X.1951, leg. A. Comellini [4]. – 3 ♀. Austria, Northern Tyrol, St Anton am Arlberg, Mt Galzig, 2150 m, 7.VIII.1967, leg. A. Comellini.

E. viabilis, 4 ♂, 4 ♀ (BMNH). Russia, Magadan Area, environs of Talon, Taui River (59.7619°N, 148.6561°E), ca 20 m a.s.l., summer 1988, leg. A. Ryabukhin.

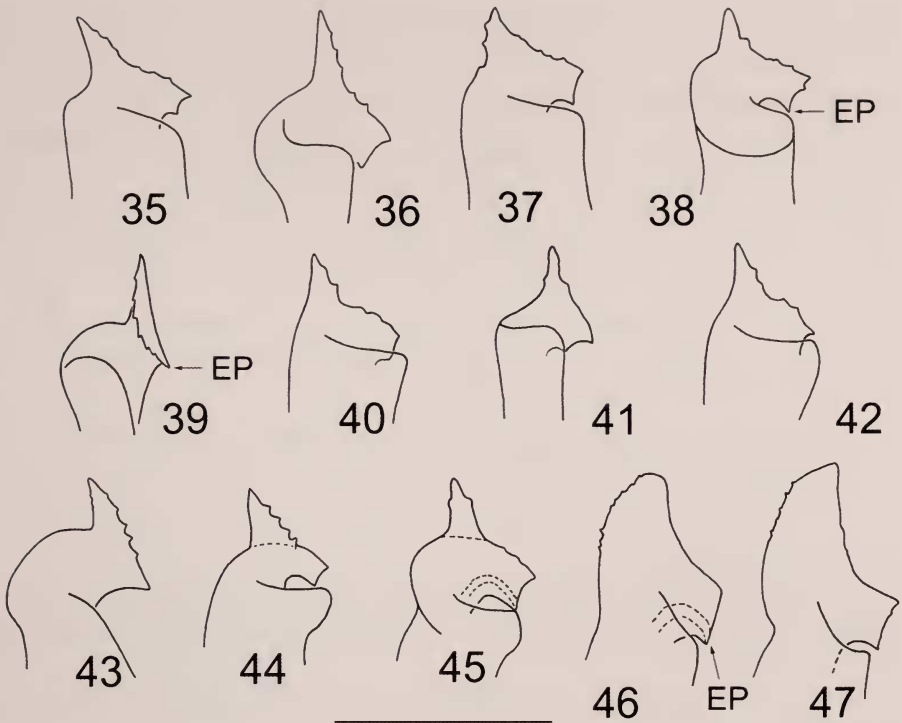
E. zographica, BMS: 1 ♂, 3 ♀, U.S.A., State of Washington, Elwha River Mouth, Warrior Trail end (48.1475°N, 123.5591°W), swept along estuary shoreline, 19.VI.2008, leg. R. Crawford. – 1 ♂, 2 ♀, Deemer Creek (48.931°N, 117.089°W), 1400 m a.s.l., ex soggy moss beds at stream edge, 11.-13.VI.1986, leg. R. Crawford. – 14 ♂, 7 ♀, Samish River (48.554°N, 122.452°W), swept in tidal sedge/grass, 23.VI.1990, leg. R. Crawford. – 1 ♂, 8 ♀, Waterside Trail (47.646°N, 122.295°W), ex moss in Salix and Typha thickets, 14.II.1982, leg. R. Nelson. – Several ♂ & ♀, Russia, Kurile Islands, Paramushir Island, SW shore, Taina River (50.3667°N, 155.6000°E), leg. Y. Marusik. – PCB: 1 ♂, Canada, Alberta, Caribou Mountains Wildland, Wentzel Lake (utm N0645415, E6550961), horsetail meadow, sweeping, 16.VII.2003, leg. T. Johnson. – 1 ♂, 2 ♀, Willmore Wilderness Park, Casket Creek (N5965296, E307675), willow meadow, in grass, 12.-20.VII.2007, leg. G. Hilchie, D. Macaulay. – 1 ♀, Swift Creek (N5979060, E328687), 2012 m a.s.l., 13.-20.VII.2007, leg. G. Hilchie, D. Macaulay. – 1 ♂, 2 ♀, unnamed valley (N5958369, E32991), talus, meadow, creek, 1649 m a.s.l., 12.-20.VII.2007, leg. G. Hilchie, D. Macaulay. – 2 ♂, 1 ♀, Fetherstonhaugh Creek (N5957323, E312011), talus, meadow, creek, 1949 m a.s.l., 22.-28.VI.2007, leg. T. Johnson, G. Hilchie. – 1 ♀, Kakwa Wildland Province Park, Deadhorse Meadows (54.138950°N, 119.926717°W), 15.-20.VI.2006, leg. T. Johnson. – 1 ♀, same locality, 28.VI.-15.VII.2006, leg. T. Johnson. – 1 ♂, same locality, 26.VI.-17.VII.2006, leg. T. Johnson. – 1 ♂, Berg Lake (53.9480°N, 119.9152°W), 1986 m a.s.l., 25.VII.2006, leg. T. Johnson. – 1 ♀, Sulphur Ridge (N6004152, E318269), 17.-22.VI.2006, leg. T. Johnson, D. Vujnovic. – 1 ♂, same locality, 17.-22.VI.2006, leg. T. Johnson, D. Vujnovic. – 1 ♂. Saskatchewan, Cypress Hills, Central Block, forest pond, ex *Rana pipiens*, 4.VI.1969, leg. D. Reid.

E. simillima, ZMMU: 1 ♂, 4 ♀, Russia, Magadan Area, upper reaches of Kolyma River, near Sibit-Tyellakh, J. London Lake, 25.VIII.1984, leg. K. Eskov, Y. Marusik. – 20 ♂ & ♀, near Sibit-Tyellakh, alpine belt, 1100 m a.s.l., 15.VIII.1985, leg. Y. Marusik. – 1 ♂, Commander Islands, Mednyi Island, VII.-VIII.1978, leg. S. Popov. – 1 ♂, 13 ♀, Mednyi Island, Glinka Gulf, grass tundra, 31.VI.-1.VIII.1983, leg. A. Zilenko. – 1 ♂, 1 ♀, Cisokhotia, Okhotsk District, Ul'ya River, mouth of Amka River, 6.VIII.1988, leg. V. Zherikhin, I. Sukachova. – 1 ♂, near Okhotsk, airport, quagmire near bank of river, 15.VII.1987, leg. V. Zherikhin, I. Sukachova. Further new material from South Siberia concerning *E. cristatopalpus* will be presented and discussed elsewhere (Tanasevitch, in preparation).

MISIDENTIFICATIONS: *E. tenuimana* (mislabelled as *E. cristatopalpus*), 2 ♂, 1 ♀, Austria, Carinthia, route to Mt Grossglockner, ascent to Franz Josef's Height, 2260-2300 m a.s.l., 1978-1980, leg. K. Thaler; an additional label in a vial: A: Glockner, 1750-2200 m a.s.l. – 17 ♂, 2 ♀, same locality, 1900-2580 m a.s.l., 1978-1980, leg. K. Thaler; an additional label in a vial: A: Glockner, 1750-2200 m a.s.l. – 2 ♂, 2 ♀, same locality, 1900-2580 m a.s.l., 1979, leg. K. Thaler. – 1 ♂, same locality, 1900-2580 m a.s.l., 1979, leg. K. Thaler.

E. whymperi O. P.-Cambridge, 1877 (labeled as *E. zographica?*, *tirolensis?*), 1 ♂, Mongolia, locality data illegible, June 1988, leg. S. Heimer. In spite of the fact that the exact locality is unknown, it is possible to tell confidently that this species was found in high mountains of Mongolia. The arcto-alpine *E. whymperi* was hitherto known in Eurasia only from beyond the Arctic Circle: from Vorkuta, Russia (Tanasevitch & Koponen, 2007), and from Yamal Peninsula, Russia (Tanasevitch *et al.*, 2009). This species is here reported for the first time for the Mongolian fauna.

REMARKS: *E. cristatopalpus* belongs to the *psychrophila*-group (sensu Crosby & Bishop, 1928), containing at least a dozen of very similar species, which is characterized by a high level of infraspecific variability of somatic and genitalic structures



FIGS 35-47

Apex of embolic division of *Erigone cristatopalpus* Simon, 1884 (35-38), of *E. zographica* Crosby & Bishop, 1928, holotype (AMNH) (39-41), different aspects, of *E. viabilis* Chamberlin & Ivie, 1933, holotype (AMNH) (42), of *E. remota* L.Koch, 1869 (43), of *E. whymperi* O. P. Cambridge, 1877 (44), of *E. psychrophila* Thorell, 1872 (45), and of *E. tirolensis* L. Koch, 1872 (46, 47). (35, 36) Specimen from Foppolo, Italy, different aspects. (37) Specimen from Lake Tignes, France. (38) Specimen from Toggia, Italy. (43) Specimen from Polar Urals, Russia (CAT). (44) Specimen from Qooqut, Greenland (ZMMU). (45) Specimen from Severnyi Island of Novaya Zemlya, Russia (ZMMU). (46, 47) Specimens from West Chukotka, Chaun River mouth (ZMMU).

that caused numerous synonyms in the group. Strong variability was found in body size, teeth arrangement on the carapace, chelicerae and palpal femur; length of the palpal tibia; size of the dorsal apophysis (sensu Muster & Hänggi, 2009) and presence/absence/size of a tubercle on the ventral lobe (= ventral apophysis auct.) of the palpal tibia; as well as shape of the dorsal plate (= central capsule, median plate auct.) and direction of the receptacula, see, e.g., Tanasevitch & Koponen (2007), Muster & Hänggi (2009). In contrast, shape of the embolus (see Figs 35-47), as well as of mesal and posterior tooth (sensu Crosby & Bishop, 1928) in the embolic division are more or less stable, show little variability and might be a good character for reliable distinction from similar species. The similarity and high level of variability in epigynes makes identification of females in the *psychrophila*-group very problematic. A spectrum of the variations mentioned above is represented for *E. cristatopalpus*: compare

Figs 27-31, 35-42, 48-52. Many more examples from the Siberian material will be shown and discussed elsewhere (Tanasevitch, in preparation). The detailed comparison of the type with extensive comparative material of *E. cristatopalpus*, *E. viabilis*, *E. zographica* from different part of Eurasia and the Nearctic has shown that all these undoubtedly belong to a single widespread species, *E. cristatopalpus*. Despite variation in palpal and body characters, the conformation of the embolic division is quite uniform throughout the whole range of the species. The small differences in shape of the embolus or mesal tooth are often a result of observation in different orientation. The structure of the epigyne is also uniform in general, but can be easily confused with that of *E. psychrophila* Thorell, 1872 and *E. whymperi*.

Erigone cristatopalpus is most similar to the Arctic *E. whymperi* and differs by the presence of a deep and wide notch in the embolic division (arrow in Figs 32, 33 cf. figs 9-14 in Tanasevitch & Koponen, 2007).

DISTRIBUTION: Europe (region of Alps), mountains of South Siberia, East Siberia, Russian Far East, the Nearctic.

RANGE: Holarctic.

***Erigone dentipalpis* (Wider, 1834)**

MATERIAL: 1 ♀, Cyprus, Moniatis, 700 m a.s.l., sifting litter under *Laurus*, *Alnus* & blackberry, 13.IV.1981, leg. C. Besuchet [17]. – 1 ♂, 6 ♀, Israel, Maize, Newe Yaar, summer 1986, leg. S. Heimer.

REMARKS: This species is here reported for the first time for the Cypriot and Israeli faunas.

RANGE: Holarctic.

***Erigone remota* L. Koch, 1869**

MATERIAL: 1 ♂, 1 ♀; 1 ♂ (ZMMU), Italy, Aosta Valley, near Rutor Glacier, 2650 m a.s.l., under stones, VIII.1980, A. Focarile [5].

RANGE: Palaearctic arcto-alpine.

***Frontinellina frutetorum* (C. L. Koch, 1834)**

MATERIAL: 1 ♀, Greece, Crete, Lasithi, near route Lasithi - Iraklion, above bifurcation to Krasi, 570 m a.s.l., 7.V.1985, leg. C. Lienhard [Nax-85/14].

RANGE: West Palaearctic.

***Gnathonarium dentatum* (Wider, 1834)**

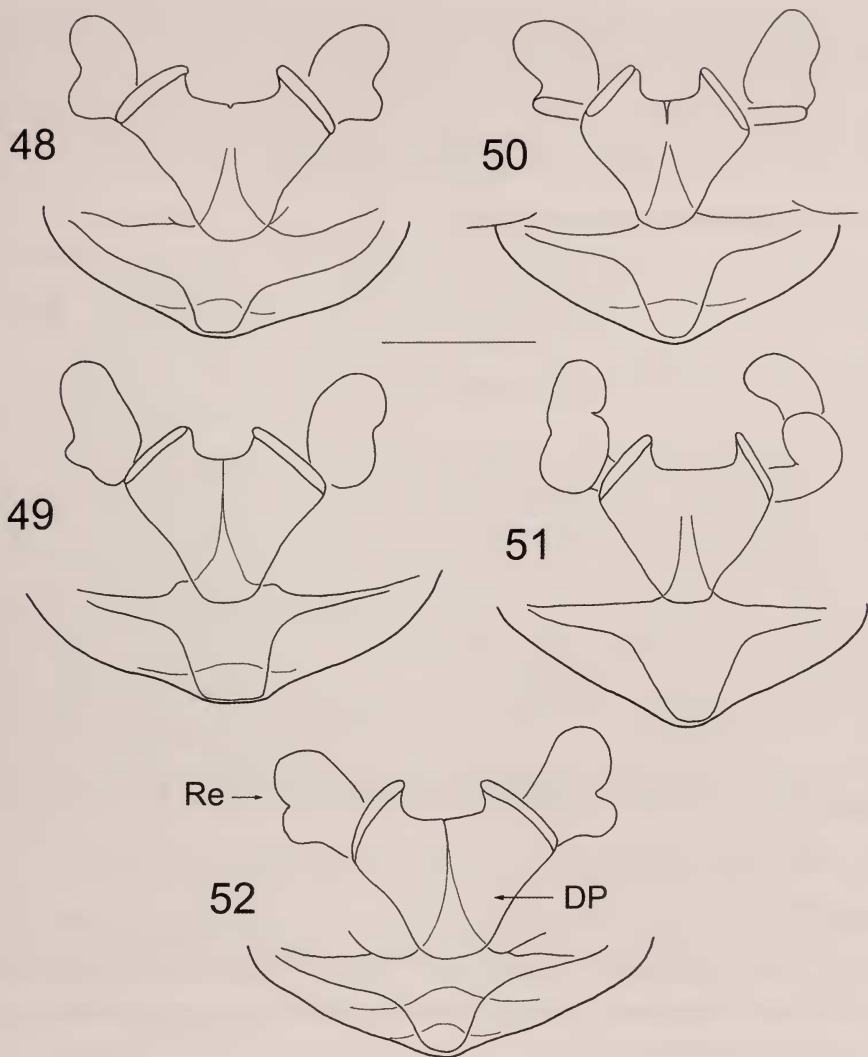
MATERIAL: 1 ♂, Italy, Sardinia, Simaxis, 20.IX.1969, leg. A. Senglet. – 1 ♀, Sicily, Palermo, Cefalu, 8.-9.VI.1974, collector unknown. – 1 ♀, Cyprus, Nicosia, irrigation canal, 10.VII.1977, leg. S. Vit.

REMARKS: This species is here reported for the first time for the Cypriot fauna.

RANGE: Palaearctic.

***Gonatium nemorivagum* (O. P.-Cambridge, 1875)**

Gonatium hilare (Thorell, 1875) sensu Eskov, 1992: 55, misidentification, examined.



FIGS 48-52

Erigone cristatopalpus Simon, 1884, epigyne, dorsal view. (48, 49) Specimens from Toggia, Italy. (50, 51) Specimens from Lake Tignes, France. (52) Specimen from Foppolo, Italy.

MATERIAL: 1 ♀, Greece, Samos, SW of Karlovasi, near cloister "Kimisos Theodoki", Kosmadei, 600-650 m a.s.l., *Pinus* forest, 24.XI.1991, leg. C. Lienhard [ZS-91/53].

REMARKS: This species is here reported for the first time for the Greek fauna.

DISTRIBUTION: In view of the fact that the species is very similar to *G. hilare* (Thorell, 1875) and specimens probably have been repeatedly misidentified, its distribution is unclear now (see Millidge, 1981).

NOTE: A record of *G. hilare* from Sakhalin Island, Russia actually refers to *G. nipponicum* Millidge, 1981, earlier known from Japan only (Millidge, 1981). Thus, the known distribution of *G. hilare* is restricted to Europe.

MATERIAL EXAMINED: 1 ♀ (ZMMU, mislabeled as *G. hilare*), Russia, Sakhalin, Korsakov District, Lesnoye, 24.IX.1987, leg. A. Basarukin. – 1 ♂ subad. (ZMMU, mislabeled as *G. hilare*), Makarov District, Tsapko, 2.VIII.1987, leg. A. Basarukin.

Gongyliellum murcidum Simon, 1884

MATERIAL: 1 ♀, Greece, Rhodes, Profitis Ilias, 650 m a.s.l., sifting litter from karst depression, 11.IV.1977, leg. C. Besuchet [7b]. – 2 ♀, Samos, 3 km W of Pirgos, 400 m a.s.l., sifting litter under *Platanus*, 14.V.1985, leg. C. Besuchet [4b]. – Cyprus, ca 60 ♂ & ♀, Ayios Dhimitrios, 600 m a.s.l., sifting litter under *Quercus* in ravine, 9.VII.1977, leg. C. Besuchet [2a]. – 2 ♂, ca 60 ♀, same locality, 700 m a.s.l., sifting litter, 9.VII.1977, leg. S. Vit [c/15]. – 1 ♂, 3 ♀, above Ayios Dhimitrios, sifting litter under *Platanus*, *Alnus* & *Quercus*, 11.IV.1981, leg. C. Besuchet [12b]. – 2 ♂, 10 ♀, route Phini - Ayios Dhimitrios, 4 km from Phini, sifting litter under *Platanus*, *Alnus* & *Quercus*, 13.IV.1981, leg. C. Besuchet [16b]. – 19 ♀, Cedar Valley, 1200 m a.s.l., sifting litter, 24.VII.1977, leg. C. Besuchet [42]. – 2 ♂, 1 ♀, Maa (Coral Bay), on beach, under stones, 19.IV.1981, leg. C. Besuchet [27b]. – ca 60 ♀, 6 km NE of Larnaca (Hotel Lordos Beach), on beach, under stones, 6.IV.1981, leg. C. Besuchet [2]. – 13 ♀, 3 km S of Prodhromos, 1500 m a.s.l., bank of brook, under stones, 10.IV.1981, leg. C. Besuchet [11a]. – 3 ♀, Pano Platres, 1200 m a.s.l., sifting litter under *Platanus* & *Pinus*, 14.IV.1981, leg. C. Besuchet [19]. – 47 ♀, Nicosia, Alonoudhi Junction, 600 m a.s.l., sifting litter under *Platanus*, 15.VII.1977, leg. S. Vit [c/27]. – 2 ♀, Turkey, Artvin, between Borçka and Artvin, bank of Coruh River, 200 m a.s.l., under stones, sifting litter under *Tamarix*, 8.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [9]. – 4 ♀, 8 km W of Borçka, 350 m a.s.l., deciduous forest, sifting litter, 8.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [8]. – 4 ♂, 7 ♀, Lebanon, Hasroun near Bsharri, 1500 m a.s.l., sifting dry leaf litter, 3.IV.1975, leg. C. Besuchet [14b]. – 1 ♀, near Bsharri, 1950-2000 m a.s.l., sifting dry leaf litter under *Cedrus* & *Salix*, 2.IV.1975, leg. C. Besuchet [13b].

REMARKS: This species is here reported for the first time for the Greek and Cypriot faunas.

RANGE: West Palaearctic.

Gongyliellum vivum (O. P.-Cambridge, 1875)

MATERIAL: 1 ♀, Turkey, Artvin, between Hopa and Kemalpaşa, 11 km from Hopa, sifting litter under ferns and blackberry, 10.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [12a].

REMARKS: This species is here reported for the first time for the Turkish fauna.

RANGE: European.

Gongyliellum orduense Wunderlich, 1995

Figs 53-58

MATERIAL: 1 ♂, 1 ♀, Turkey, Kastamonu, 5 km S of Küre, 1200 m a.s.l., *Fagus* & *Picea* forest, sifting litter, 18.V.1976, leg. C. Besuchet & I. Löbl [24]. – 1 ♀, between Inebolu and Sure, 10 km from Küre, 700 m a.s.l., *Fagus* & *Picea* forest with *Rhododendron*, sifting litter, 18.V.1976, leg. C. Besuchet & I. Löbl [22]. – 3 ♀ (ZMMU), Sinop, near Lala, *Quercus* & *Fagus* forest, sifting litter, 20.V.1976, leg. C. Besuchet & I. Löbl [28]. – 2 ♀, above Bektas, 23 km N of Boyabat, route Boyabat - Sinop, 1100 m a.s.l., *Fagus* forest, sifting litter, 20.V.1976, leg. C. Besuchet & I. Löbl [31]. – 1 ♂, 4 ♀, Zonguldak, 17 km N of Safranbolu, route Bartın - Safranbolu, 1000 m a.s.l., *Fagus* forest with *Picea* & *Pinus*, sifting litter, 16.V.1976, leg. C. Besuchet & I. Löbl [18]. – 1 ♀, 10 km from Zonguldak, route Zonguldak - Çaycuma, 500 m a.s.l., *Fagus* forest with *Rhododendron*, sifting litter, 23.V.1976, leg. C. Besuchet & I. Löbl [35]. – 1 ♀, Artvin, 8 km W of Borçka, 350 m a.s.l., deciduous forest, sifting litter, 8.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [8]. – 1 ♀, SW of Artvin, 1900 m a.s.l., pasture in *Fagus* &

Picea forest, under stones, 9.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [10a]. – 2 ♀, above Artvin, 1500 m a.s.l., *Fagus* & *Picea* forest with *Rhododendron*, sifting litter, 9.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [11b]. – 1 ♀, between Hopa and Kemalpaşa, 11 km from Hopa, sifting litter under ferns and blackberry, 10.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [12a].

REMARKS: This species has been described from Anatolia, Turkey, from a single male. A description of the female is given below for the first time.

DESCRIPTION OF FEMALE: Total length 1.98. Carapace unmodified, 0.82 long, 0.57 wide, pale brown. Chelicerae 0.35 long, frontal tooth absent. Legs pale brown. Leg I 1.92 long (0.55+0.22+0.45+0.38+0.32), IV 1.93 long (0.55+0.20+0.50+0.38+0.30). Chaetotaxy: 2.2.1.1, spines about as long as diameter of tibia or a bit longer. TmI 0.38. Metatarsus IV without trichobothrium. Abdomen 1.27 long, 0.82 wide, pale grey. Epigyne with highly pigmented and well protruded drop-shaped ventral plate as in Fig. 58. Receptacles small, spherical.

SHORT DESCRIPTION OF MALE: Total length 1.50. Carapace unmodified, 0.70 long, 0.55 wide. Chelicerae 0.30 long, frontal tooth position as in Fig. 53. Leg I 1.92 long (0.55+0.20+0.48+0.38+0.31), IV 1.87 long (0.53+0.20+0.48+0.38+0.28). TmI 0.37. Palp as in Figs 54-57. Abdomen 0.78 long, 0.50 wide. Body and leg coloration, as well as chaetotaxy, as in female.

DISTRIBUTION: This species is still known from northern Turkey only.

RANGE: Anatolian.

Icariella hauseri Brignoli, 1979

MATERIAL: 1 ♀, Greece, Ikaria, above Aghios Kirikos, Metallio, in old mine, 30 m a.s.l., 23.XI.1991, leg. B. Hauser [ZS-91/46]. – 8 ♀, same locality, 23.XI.1991, leg. B. Hauser [ZS-91/45].

DISTRIBUTION: This species is still known from the Greek island of Ikaria only.

Improphantes cypriot sp. n.

Figs 59-64

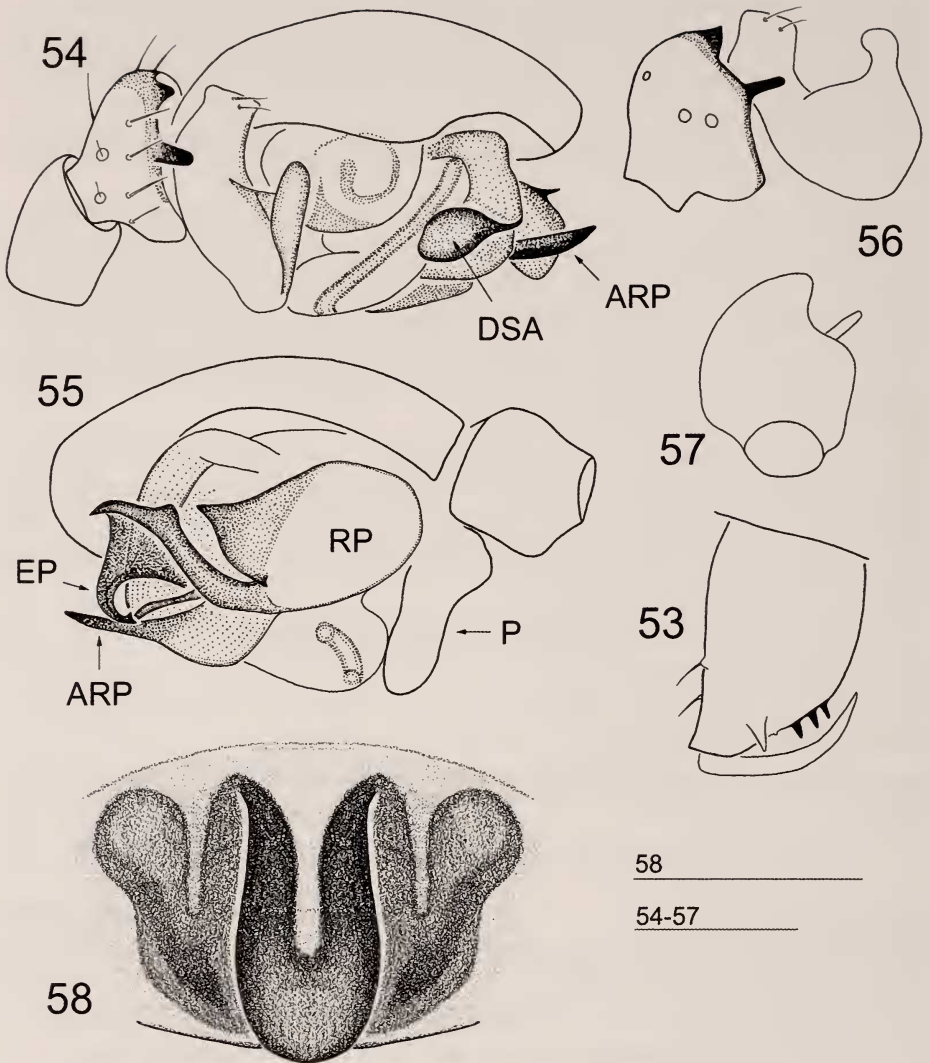
HOLOTYPE: ♂, Cyprus, Larnaca, N of airport, sifting litter along a canal, 5.IV.1981, leg. C. Besuchet [1].

PARATYPE: 1 ♂, Cyprus, SW of Kumayli, alluvial deposits, 9.IV.1998, leg. S. Vit [98-4a].

ETYMOLOGY: The specific name, a noun, refers to an inhabitant of Cyprus.

DIAGNOSIS: The species is characterised by the circular saw-shaped lamella characteristica.

DESCRIPTION: Male paratype. Total length 1.63. Carapace unmodified, 0.73 long, 0.63 wide, greyish yellow. Chelicerae 0.28 long. Legs yellow, leg I 3.15 long (0.78+0.23+0.83+0.78+0.53), IV 3.19 (0.88+0.20+0.83+0.78+0.50). Chaetotaxy: FeI-IV: 0-0-0-0; TiI: 2-1-1-0; II: 2-0-1-0, III-IV: 2-0-0-0; MtI-III: 1-0-0-0, IV: 0-0-0-0. TmI 0.18. Palp (Figs 59-64): Cymbium without posterodorsal outgrowth. Paracymbium with a strong tooth in middle part. Lamella characteristica short, distally circular saw-shaped. Radix with a spear-shaped outgrowth near base of lamella characteristica. Embolus with a poorly expressed thumb and small but distinct carina. Abdomen 0.93 long, 0.50 wide, grey.



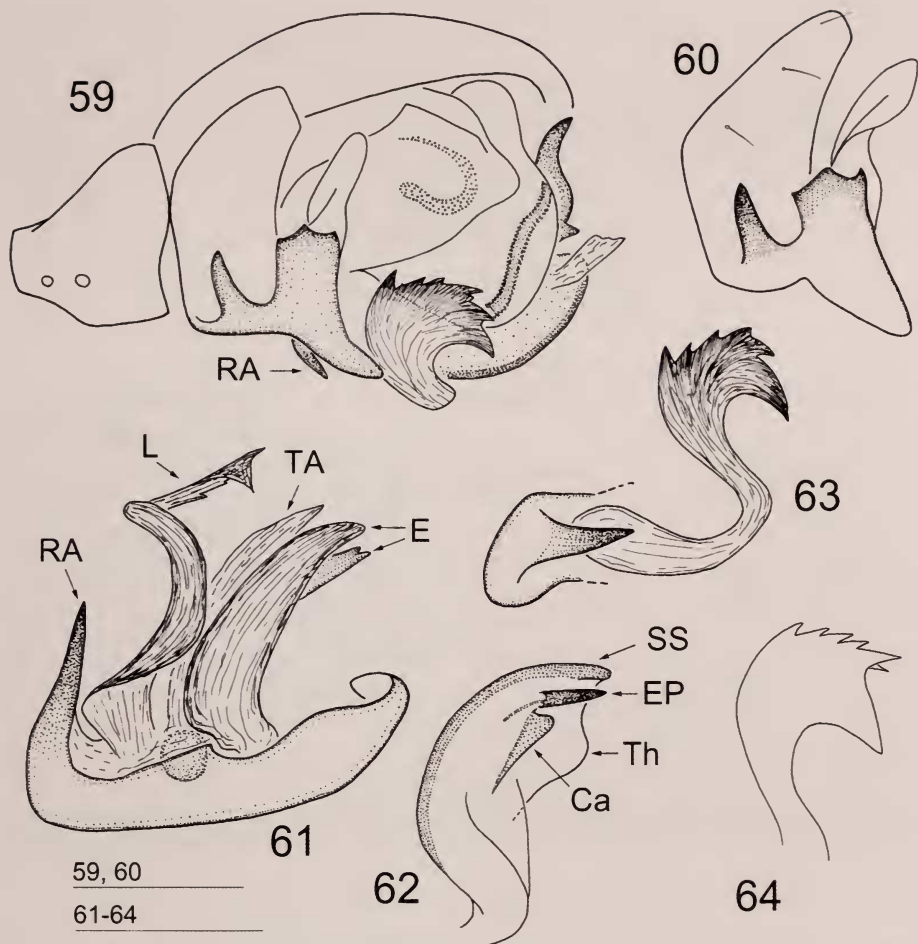
FIGS 53-58

Gongyliidiellum orduense Wunderlich, 1995, ♂ and ♀ from Küre, Turkey. (53) Male chelicera, frontal view. (54, 55) Right palp, retrolateral and prolatateral view, respectively. (56) Palpal tibia and paracymbium, lateral view. (57) Palpal tibia, dorsal view. (58) Epigyne, ventral view.

VARIABILITY: The number of teeth and their arrangement in distal part of the lamella characteristica differs in different specimens and even on the left and right palp of the same animal.

TAXONOMIC REMARKS: The new species is most similar to *I. turok* sp. n., see below.

DISTRIBUTION: Known from Cyprus only.



Figs 59-64

Improphantes cyriot sp. n., ♂ paratype from Kumayli, Cyprus. (59) Right palp, retrolateral view. (60) Paracymbium, lateral view. (61) Embolic division. (62) Embolus. (63, 64) Lamella characteristica, different aspects.

Improphantes turok sp. n.

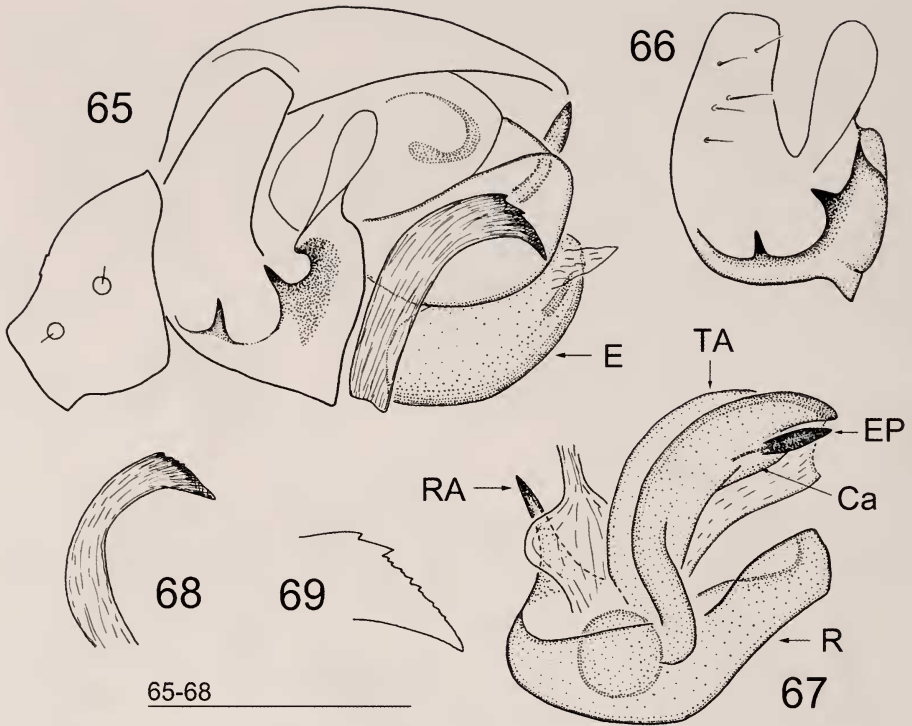
Figs 65-69

HOLOTYPE: ♂, Turkey, Antalya, Chaine Ak Daglari, E of Fethiye, 900 m a.s.l., sifting litter, 11.IV.1993, leg. S. Vit [4].

ETYMOLOGY: The specific name "turok", a noun, is latinization of the Russian word for "Turk".

DIAGNOSIS: The species is characterised by small size, as well as by the peculiar shape of the lamella characteristica and the paracymbium.

DESCRIPTION: Male. Total length approximately 1.30. Carapace unmodified, 0.60 long, 0.50 wide, yellow, with a narrow dark margin. Chelicerae 0.22 long. Legs



FIGS 65-69

Improphantes turok sp. n., ♂ holotype. (65) Right palp, retrolateral view. (66) Paracymbium, lateral view. (67) Embolic division. (68) Lamella characteristica. (69) Apex of lamella characteristica (not to scale).

mostly broken off. Leg IV 2.66 long (0.70+0.17+0.67+0.67+0.45). Chaetotaxy unknown. Palp (Figs 65-69): Cymbium without posterodorsal outgrowth. Paracymbium U-shaped, posterior and anterior pockets each with a weakly sclerotized tooth. Radix with a spear-shaped outgrowth at base of lamella characteristica. Lamella characteristica like a slightly curved band slantwise cut at end. Embolus with a narrow carina and poorly expressed membrane thumb. Fickert's gland relatively large, spherical. Abdomen crumpled, dark grey.

Female unknown.

TAXONOMIC REMARKS: This species is similar to *I. cyriot* sp. n., but well distinguishable by the peculiar shape of the lamella characteristica and the paracymbium. *I. cyriot* sp. n. and *I. turok* sp. n. differ from all (?) other known congeners by the presence of a spear-shaped outgrowth on the radix. The same kind of the radical apophysis is present in the representatives of the Central Asian genus *Tchatkalophantes* Tanasevitch, 2001.

DISTRIBUTION: The species is known from the type locality only.

***Jacksonella bidens* sp. n.**

Figs 70-76

HOLOTYPE: ♂, Cyprus, 3 km S of Prodhromos, 1500 m a.s.l., sifting litter under *Platanus*, 10.IV.1981, leg. C. Besuchet (11b).

PARATYPES: 1 ♂, 1 ♀, Cyprus, above Ayia, 950 m a.s.l., sifting litter under *Pinus*, 12.VII.1977, leg. C. Besuchet [11a]. – 1 ♀, Paphos District, Mamonía, bank of Dhiarisos, sifting litter under *Tamarix*, 14.VII.1977, leg. S. Vit [c/26]. – 1 ♀ (epigyne only), Greece, Samos, route Kambos (E of Aghios Konstantinos) - Vourliotes, above cloister "Moni Vronda", in soil under *Pinus* sp., 520 m a.s.l., 26.XI.1991, leg. B. Hauser [ZS-91/63].

ETYMOLOGY: The specific name, a noun, refers to the armament of its chelicerae.

DIAGNOSIS: The species is characterised by the shape of the embolic division and by a very long median membrane.

DESCRIPTION: Male paratype. Total length 1.51 (holotype 1.68). Carapace unmodified, 0.75 long, 0.58 wide, brownish yellow. Chelicerae 0.38 long, with a tooth-like process as in Fig. 70. Maxillae each with a stout tooth anteriorly. Legs yellow. Leg I 2.19 long (0.63+0.18+0.55+0.48+0.35), IV 2.10 long (0.60+0.18+0.57+0.45+0.30). Chaetotaxy: 2.2.1.1, length of spines about one or two diameters of segment. Tml 0.35. Metatarsus IV without trichobothrium. Palp (Figs 71-74): Tibia unmodified. Protégulum membranous, almost transparent. Distal suprategular apophysis sharpened distally. Median membrane like a long, narrow, almost transparent band, scarcely visible. Embolic division complex, with a large pointed anterior radical process and several small outgrowths. Embolus proper short and hook-shaped. Abdomen 0.75 long, 0.50 wide, pale grey.

Female. Total length 1.55. Carapace 0.75 long, 0.50 wide. Chelicerae 0.28 long, unmodified. Maxillae without a stout tooth. Leg I 1.99 long (0.60+0.20+0.53+0.43+0.23), IV 2.11 long (0.63+0.18+0.55+0.45+0.30). Tml 0.35. Abdomen 0.82 long, 0.50 wide. Epigyne and vulva as in Figs 75 & 76. Body and leg coloration, as well as chaetotaxy, as in male.

TAXONOMIC REMARKS: The new species differs clearly from the single known congener, *J. falconeri* (Jackson, 1908), by the presence of a stout tooth on the maxillae, by a well-developed distal suprategular apophysis, by a bigger and more complex embolic division, as well as by the shape of the epigyne.

DISTRIBUTION: Known from the islands of Cyprus and Samos only.

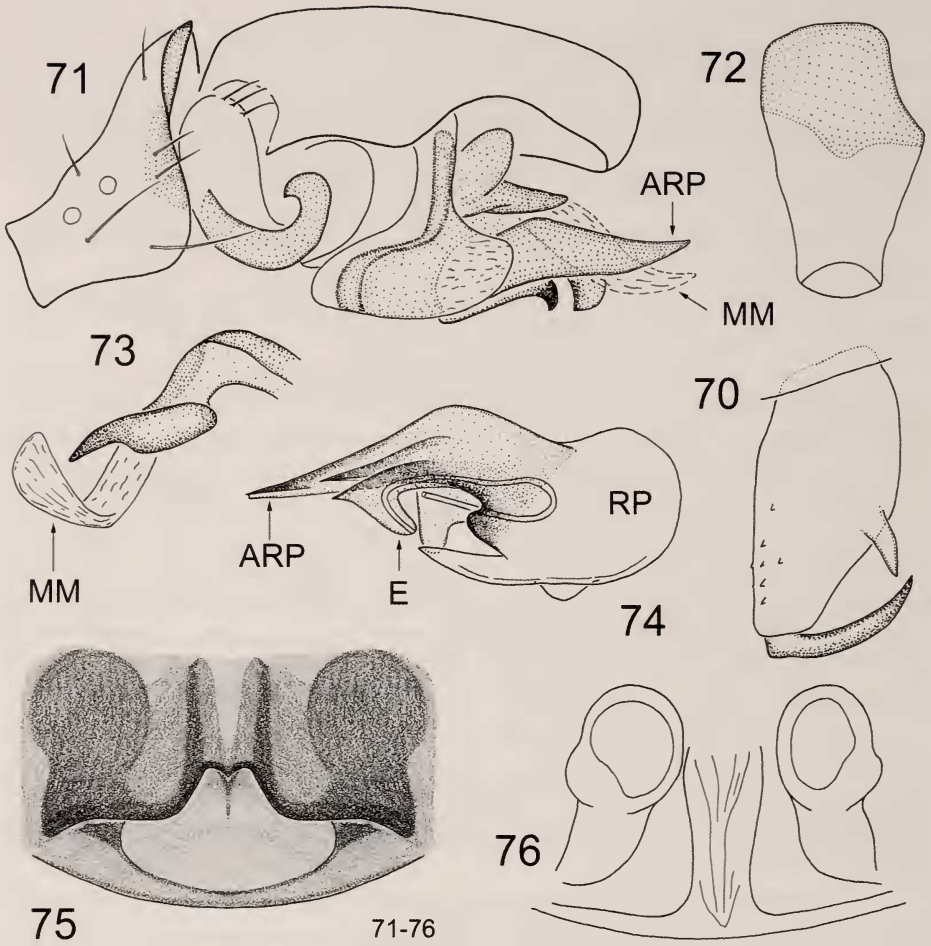
***Lepthyphantes leprosus* (Ohlert, 1867)**

MATERIAL: 1 ♀, Greece, Ikaria, route Aghios Kirykos - Oxea, near Oxea, under stones, 500 m a.s.l., 22.XI.1991, leg. B. Hauser [ZS-91/37]. – 1 ♀, Samos, SW of Karlovasi, near cloister "Kimisos Theodoki", cave "Kako Perato", 580 m a.s.l., 24.XI.1991, leg. C. Lienhard [ZS-91/52].

RANGE: Holarctic.

***Maso sundevalli* (Westring, 1851)**

MATERIAL: 1 ♀, Turkey, Kars, Ilgardagi Geçidi, between Damai and Posof, 2350 m a.s.l., *Betula* forest with *Sorbus*, sifting litter, 13.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [18c]. – 2 ♀, Sinop, Lala, *Quercus* forest with *Fagus*, sifting litter, 20.V.1976, leg. C. Besuchet & I. Löbl [28]. – 3 ♀, Sakarya, Serefiye, 20 km S of Adapazari, *Quercus* forest with *Tilia* & *Acer*, sifting litter, 14.V.1976, leg. C. Besuchet & I. Löbl [12].



FIGS 70-76

Jacksonella bidens sp. n., ♂ and ♀ paratypes from Ayia, Cyprus. (70) Male chelicera, frontal view. (71) Right palp, retrolateral view. (72) Palpal tibia, dorsal view. (73) Distal suprategular apophysis and median membrane. (74) Embolic division. (75, 76) Epigyne and vulva, respectively, ventral view.

REMARKS: This species is here reported for the first time for the Turkish fauna.

RANGE: Holarctic.

Mecynargus paetulus (O. P.-Cambridge, 1875)

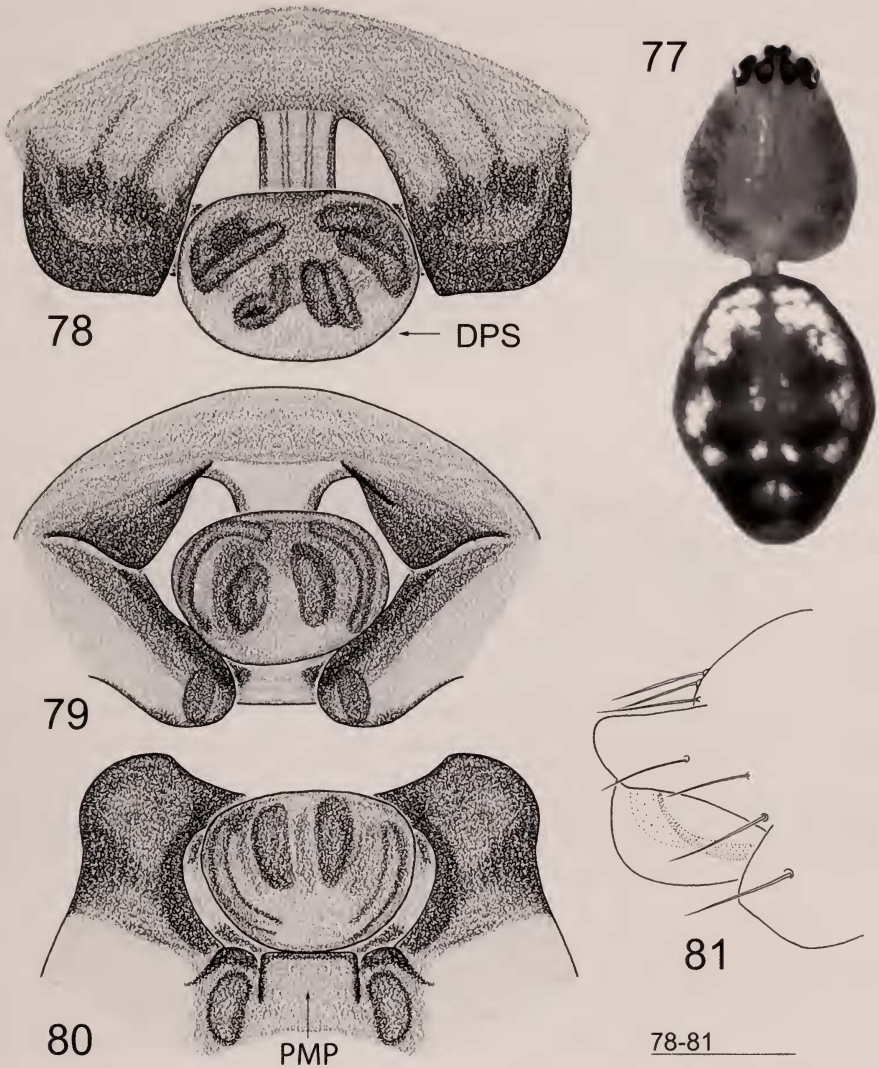
MATERIAL: 3 ♂, 1 ♀, Italy, Toggia Valley, 24.X.1967, leg. A. Comellini.

RANGE: Holarctic.

Megalephyphantes globularis sp. n.

Figs 77-81

HOLOTYPE: ♀, Turkey, Artvin, Cankurtaran Geçidi, between Borçka and Hopa, 700 m a.s.l., under stones, 8.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [7a].



FIGS 77-81

Megalephyphantes globularis sp. n., ♀ holotype. (77) Body, dorsal view. (78-81) Epigyne, ventral, posteroventral, dorsal and lateral view, respectively.

ETYMOLOGY: The specific name, an adjective, refers to the globular shape of the distal part of the scape.

DIAGNOSIS: The species is characterised by the peculiar structure of its epigyne.

DESCRIPTION: Female. Total length 2.48. Carapace unmodified, 1.08 long, 0.80 wide, pale yellow, with a broad grey margin as in Fig. 77. Chelicerae 0.45 long. Legs yellow, without bands, with darkened end of segments. Leg I 7.35 long

(1.95+0.30+1.95+2.00+1.15), IV 5.05 long (1.50+0.25+1.30+1.30+0.70) long. Chaetotaxy: Fel: 0-1-0-0, II-IV: 0-0-0-0; TiI-IV: 2-1-1-0; MtI-IV: 1-0-0-0. Tml 0.19. Metatarsus IV without trichobothrium. Abdomen 1.43 long, 0.93 wide, abdomen pattern as in Fig. 77. Epigyne (Figs 78-81): Pseudoscape divided into two lobes by a deep notch. Distal part of scape globular, middle part short, proximal part (= proscape), as well as lateral lobes and stretcher totally reduced. Entrance grooves passing through middle part of scape, then entering backwall and running through lateral walls to the receptacles.

TAXONOMIC REMARKS: The species differs from other congeners by the totally reduced proscape and the presence of a pseudoscape. The epigyne bears some resemblance to that of the representatives of *Lidia* Saaristo & Marusik, 2004. In the absence of the corresponding male it is difficult to unambiguously place the species into any genus.

DISTRIBUTION: Known from the type locality only.

Megalephthantes turkeyensis Tanasevitch, Kunt & Seyyar, 2005 Fig. 82
Lepthiphantes congener (O. P.-Cambridge, 1872) sensu Kulczyński, 1908: 68, pl. 2, fig. 17; ♂ from Cyprus, misidentification.

MATERIAL: 1 ♂, 2 ♀, Cyprus, Troodos Mts, Cedar Valley, near camping, 1100 m a.s.l., under stones, 18.XI.1991, leg. B. Hauser [ZS-91/20]. – 2 ♂, 1 ♀, Ikaria, above Aghios, Metallio, stony slope, S exposition, litter and under stones, 50 m a.s.l., 23.XI.1991, leg. C. Lienhard [ZS-91/48].

REMARKS: Kulczyński (1908) described and illustrated a male from Cyprus, which he erroneously believed to be the missing male of *Lepthiphantes congener* (O. P.-Cambridge, 1872) [= *Frontinellina frutetorum* (C. L. Koch, 1834)]. The figure of a male palp of *L. congener* made by Kulczyński (1908) (Fig. 83) shows that this specimen clearly belongs to *M. turkeyensis*, not to *F. frutetorum*, as mentioned by Bosmans (1994). Compare Fig. 82 and Fig. 83.

DISTRIBUTION: Cyprus and Mersin Province, Turkey.

Metopobactrus prominulus (O. P.-Cambridge, 1872)

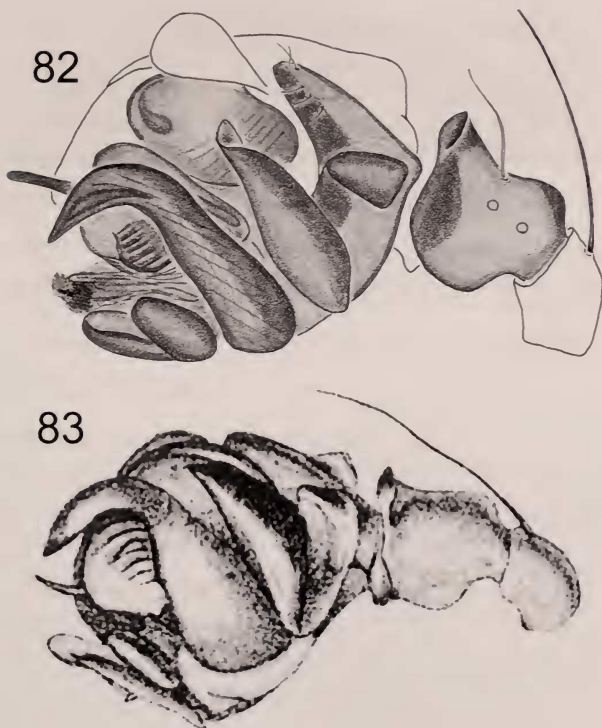
MATERIAL: 1 ♂, Turkey, Gümüşhane, between Erzincan and Kelkit, 30 km from Erzincan, 2100 m a.s.l., under stones, 4.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [1a].

REMARKS: This species is here reported for the first time for the Turkish fauna.

RANGE: Holarctic.

Micrargus herbigradus (Blackwall, 1854)

MATERIAL: 1 ♂, 2 ♀, Italy, Tuscany, Mt Argentario, Maremma, 280-400 m a.s.l., sifting litter under *Quercus ilex* & *Q. suber*, 13.-14.II.1980, leg. A. Focarile. – 2 ♀, Piedmont Province, Cuneo, Mt Antorovo, 1700 m a.s.l., litter under *Alnus viridis*, 16.VI.1982, leg. A. Focarile [13]. – 1 ♀, Lombardia, Fondra, 25.VI.1966, leg. A. Comellini. – 1 ♀, Turkey, SW of Artvin, pasture in *Fagus* & *Picea* forest, 1900 m a.s.l., under stones, 9.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [10a]. – 1 ♂, Cankurtaran Geçidi, between Borçka and Hopa, deciduous forest with *Quercus*, *Castanea*, *Acer*, *Tilia*, *Alnus*, *Buxus*, sifting litter, 700 m a.s.l., 8.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [7c]. – 1 ♀, near Pirnalli, Karkal Dagi Mts, 1250 m a.s.l., sifting litter in ravine, 11.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [15b]. – 2 ♂, 2 ♀,



FIGS 82-83

Megalephyphantes turkeyensis Tanasevitch, Kunt & Seyyar, 2005 (after Tanasevitch et al., 2005) (82) and *Lephyphantes congener* (O. P.-Cambridge, 1872) (after Kulczyński, 1908) (83). Not to scale.

Kastamonu, Ilgazdag, route Kastamonu - Çankiri, Diphan, 1300 m a.s.l., 17.V.1976, leg. C. Besuchet & I. Löbl [20]. - 2 ♂, Kastamonu, 5 km S of Küre, 1200 m a.s.l., *Fagus* forest, sifting litter, 18.V.1976, leg. C. Besuchet & I. Löbl [24]. - 1 ♂, 1 ♀, 10 km from Zonguldak, route Zonguldak - Caycuma, 500 m a.s.l., *Fagus* forest with *Rhododendron*, sifting litter, 16.V.1976, leg. C. Besuchet & I. Löbl [16].

REMARKS: This species is here reported for the first time for the Turkish fauna.

RANGE: Palaearctic.

***Microctenonyx subitaneus* (O. P.-Cambridge, 1875)**

Archaraeoncus prospiciens (Thorell, 1875) sensu Tanasevitch, 1987: 337, fig. 73, ♀ from Kyrgyzstan, misidentification, examined.

MATERIAL: 1 ♂, Italy, Sardinia, Decimomanu, 18.IX.1969, leg. A. Senglet. - 1 ♀, Malta, without locality, 9.V.1974, leg. V. Mahnert. - 1 ♀, same locality, 13.V.1974, leg. V. Mahnert. - 1 ♀, Hagar Qim, 2.V.1976, leg. P. Strinati & V. Aellen. - 1 ♀, Greece, Etolia, Amphilochia, under stones, 29.III.1978, leg. S. Vit [13]. - 2 ♀, Cyprus, 4 km E of Ksilofagu, sifting litter in ravine, 6.IV.1981, leg. C. Besuchet [3b]. - 4 ♀; 2 ♀ (ZMMU), Lebanon, environs of Dâmoûr, valley of left tributary of Nahr ed Damour River, 6 km from branching, sifting leaf litter on bank of river after flooding, 28.III.1975, leg. C. Besuchet [5]. - 1 ♀, Mazraal Nabi Kassem, close to

confluent of Nahr el Litani, bank of river, under grass, 29.III.1975, leg. C. Besuchet [7]. – 2 ♀, Israel, Galilee, Jordan, near Ohalo (1 km S of Lake Tiberias), 200 m a.s.l., 27.IV.1982, leg. C. Besuchet & I. Löbl.

REMARKS: A drawing of the epigyne of *Archaraeoncus prospiciens* from Bishkek, Kyrgyzstan given by Tanasevitch (1987) actually refers *M. subitaneus*. This species is here reported for the first time for the Cypriot and Jordanian faunas.

RANGE: European-Ancient Mediterranean.

Microlinyphia pusilla (Sundevall, 1830)

MATERIAL: 1 ♂, Greece, Epirus, between Salaora and Arta, bank of lagoon, 28.III.1978, leg. S. Vit [19].

RANGE: Holarctic.

Microneta viaria (Blackwall, 1841)

MATERIAL: 2 ♂, 14 ♀, Italy, Tuscany, Mt Argentario, Maremma, 280-400 m a.s.l., sifting litter under *Quercus ilex* & *Q. suber*, 13.-14.II.1980, leg. A. Focarile. – 1 ♂, Greece, Thessalie, Tsagarada, 350 m a.s.l., in leaf litter, 10.IV.2004, leg. S. Vit [GR-2004, #8]. – 1 ♀, SW Turkey, of Artvin, pasture in *Fagus* & *Picea* forest, 1900 m a.s.l., under stones, 9.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [10a]. – 1 ♂, 8 km W of Borçka, 350 m a.s.l., deciduous forest, sifting litter, 8.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [8]. – 1 ♀, Gümüşhane, between Erzincan and Kelkit, 30 km from Erzincan, 2100 m a.s.l., under stones, 4.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [1c]. – 1 ♀, Kastamonu, Karadere, 32 km N of Tosya, 1400 m a.s.l., *Pinus* forest, under stones, 19.V.1976, leg. C. Besuchet & I. Löbl. – 3 ♀, Ilgazdag (route Kastamonu - Çankiri), Diphani, 1300 m a.s.l., 17.V.1976, leg. C. Besuchet & I. Löbl [20]. – 1 ♂, 13 km from Agli, 1200 m a.s.l., *Quercus* forest with *Pinus*, sifting litter, 18.V.1976, leg. C. Besuchet & I. Löbl [25]. – 1 ♀, Sinop, above Bektas, 23 km N of Boyabat, route Boyabat - Sinop, 1100 m a.s.l., *Fagus* forest, sifting litter, 20.V.1976, leg. C. Besuchet & I. Löbl [31]. – 1 ♀, Bolu, Abant, 1500-1600 m a.s.l., *Fagus* forest, under stones, 22.V.1976, leg. C. Besuchet & I. Löbl [33b]. – 2 ♀, 9 km N of Mengen (route Mengen - Devrek), 750 m a.s.l., sifting leaf litter in ravine, under *Betula*, *Rhododendron*, 23.V. 1976, leg. C. Besuchet & I. Löbl [34].

REMARKS: This species is here reported for the first time for the Italian fauna.

RANGE: Holarctic.

Oedothorax apicatus (Blackwall, 1850)

MATERIAL: 1 ♂, Greece, Phthiotis, Malesina, 20.VII.1968, leg. A. Senglet [6831]. – 2 ♀, Turkey, Izmir, Çeşme, 19.IX.1988, T. Jaccoud [TR23A].

RANGE: European-Ancient Mediterranean.

Oedothorax fuscus (Blackwall, 1834)

MATERIAL: 1 ♂, 1 ♀, Italy, Zogno, 25.VI.1966, leg. A. Comellini.

RANGE: European.

Oedothorax paludigena Simon, 1926

MATERIAL: 2 ♂, 4 ♀, Greece, Epirus, between Salaora and Arta, bank of lagoon, 28.III.1978, leg. S. Vit [19].

REMARKS: This species is here reported for the first time for the Greek fauna.

RANGE: East Mediterranean.

Palliduphantes insignis (O. P.-Cambridge, 1913)

MATERIAL: 1 ♂, Greece, Euboea, route Vasilika - Istiea, near Pefki, *Pinus* sp. grove, 1.V.1987, leg. B. Hauser [Ir-87/36]. – 1 ♀, Naupactus, 14.IV.1979, leg. S. Vit. – 1 ♂, 1 ♀, Peloponnese, near Patras, under stones, 31.III.1978, leg. S. Vit [25]. – 1 ♀, Phthiotis, Malesina, 20.VII.1968, leg. A. Senglet [6831].

REMARKS: This species is here reported for the first time for the Greek fauna.

RANGE: European.

Palliduphantes khobarum (Charitonov, 1947)

MATERIAL: 1 ♀, Turkey, Anatolia, Irmasan Geçidi, Akseki, Cevizli, 100 km S of Beyşehir, 1500 m a.s.l., 8.V.1978, leg. C. Besuchet & I. Löbl [32].

REMARKS: This species is here reported for the first time for the Turkish fauna.

RANGE: East Mediterranean.

Palliduphantes longiseta (Simon, 1884)

MATERIAL: 2 ♀, Italy, Tuscany, Mt Argentario, Maremma, 280-400 m a.s.l., sifting litter under *Quercus ilex* & *Q. suber*, 13.-14.II.1980, leg. A. Focarile. – 1 ♀, same locality, 400 m a.s.l., sifting litter and under stones under *Quercus ilex* & *Arbutus unedo*, 14.II.1980, leg. A. Focarile.

REMARKS: This species is known from Italy only.

Palliduphantes melitensis Bosmans, 1994

MATERIAL: 1 ♂, Malta, Gozo Isl., Dwejra Point, under stones, 8.V.1974, leg. V. Mahnert.

REMARKS: This species is known from Malta only.

Pelecopsis elongata (Wider, 1834)

MATERIAL: 1 ♂, Cyprus, SW of Limassol, "Sait Lake", slope between lake and British Air Base, shaking trees and bushes, 20.XI.1991, leg. C. Lienhard [ZS-91/32]. – 1 ♀, route Polis - Bath of Aphrodite, 4.5 km from Polis, near Hotel Souli, shaking trees and bushes, 15.XI.1991, leg. C. Lienhard [ZS-91/2]. – 1 ♂, 1 ♀, near Bath of Aphrodite, 20 m a.s.l., shaking trees and bushes on beach, 16.XI.1991, leg. C. Lienhard [ZS-91/6]. – 2 ♀, Bath of Aphrodite, wet ravine, under bark of *Eucalyptus* sp., 17.XI.1991, leg. B. Hauser [ZS-91/13]. – 1 ♂, Polis, Canon above route Prodromi - Androlikon, 300 m a.s.l., under stones, 17.XI.1991, leg. B. Hauser [ZS-91/17]. – 3 ♂, 2 ♀, Dhoros, route Limassol - Troodos, 500 m a.s.l., shaking trees and bushes, 20.XI.1991, leg. C. Lienhard [ZS-91/36].

REMARKS: This species is here reported for the first time for the Cypriot fauna.

RANGE: European.

Pocadicnemis pumila (Blackwall, 1841)

MATERIAL: 2 ♀, Turkey, Artvin, Cankurtaran Geçidi, between Borçka and Hopa, 700 m a.s.l., under stones, 8.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [7a].

REMARKS: This species is here reported for the first time for the Turkish fauna.

RANGE: Holarctic.

Prinerigone vagans (Audouin, 1826)

MATERIAL: 1 ♂, Greece, Epirus, between Salaora and Arta, bank of lagoon, 28.III.1978, leg. S. Vit [19]. – 1 ♂, Cyprus, Paphos District, Mamonía, bank of Dhiarisos, sifting litter under *Tamarix*, 14.VII.1977, leg. S. Vit [c/26].

REMARKS: This species is here reported for the first time for the Cypriot fauna.

RANGE: Southern Palaearctic, Afrotropical, Oriental, Pacific.

Scotargus pilosus Simon, 1913

MATERIAL: 1 ♂, Italy, Aosta Valley, Velde, Gressoney, Fontainemore, 1500 m a.s.l., litter under *Abies viridis*, X.1980, leg. A. Focarile [10]. – 2 ♂, 10 ♀, Greece, Samos, SW of Karlovasi, near cloister “Kimisos Theodoki”, cave “Kako Perato”, 580 m a.s.l., 24.XI.1991, leg. C. Lienhard [ZS-91/52].

REMARKS: This species is here reported for the first time for the Greek fauna.

RANGE: South Palaearctic.

Sintula corniger (Blackwall, 1856)

MATERIAL: 1 ♂, Italy, Tuscany, Mt Argentario, Maremma, 280-400 m a.s.l., sifting litter under *Quercus ilex* & *Q. suber*, 13.-14.II.1980, leg. A. Focarile. – 1 ♀, Turkey, Artvin, 8 km W of Borçka, deciduous forest, sifting litter, 350 m a.s.l., 8.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [8].

REMARKS: This species is here reported for the first time for the Turkish fauna.

RANGE: Mediterranean.

Sintula retroversus (O. P.-Cambridge, 1875)

MATERIAL: 1 ♂, 1 ♀ subad., Greece, Ikaria, route Evdilos - Petropoulion, near Xanthi, 220 m a.s.l., 22.XI.1991, leg. B. Hauser [ZS-91/43]. – 1 ♂, Cyprus, route from Fontana Amorosa, 2 km from Bath of Aphrodite, 60 m a.s.l., under stones, 17.XI.1991, leg. B. Hauser [ZS-91/8]. – 1 ♀, Bath of Aphrodite, wet ravine, under bark of *Eucalyptus* sp., 17.XI.1991, leg. B. Hauser [ZS-91/13].

REMARKS: This species is here reported for the first time for the Cypriot fauna.

RANGE: Mediterranean.

Stemonyphantes abantensis (Wunderlich, 1978)

MATERIAL: 1 ♀, Turkey, Mudurnu, Abant, 1500-1600 m a.s.l., under bark of *Abies* & *Fagus*, 22.V.1976, leg. C. Besuchet & I. Löbl [33a].

RANGE: Anatolian.

Stemonyphantes serratus sp. n.

Figs 84-92

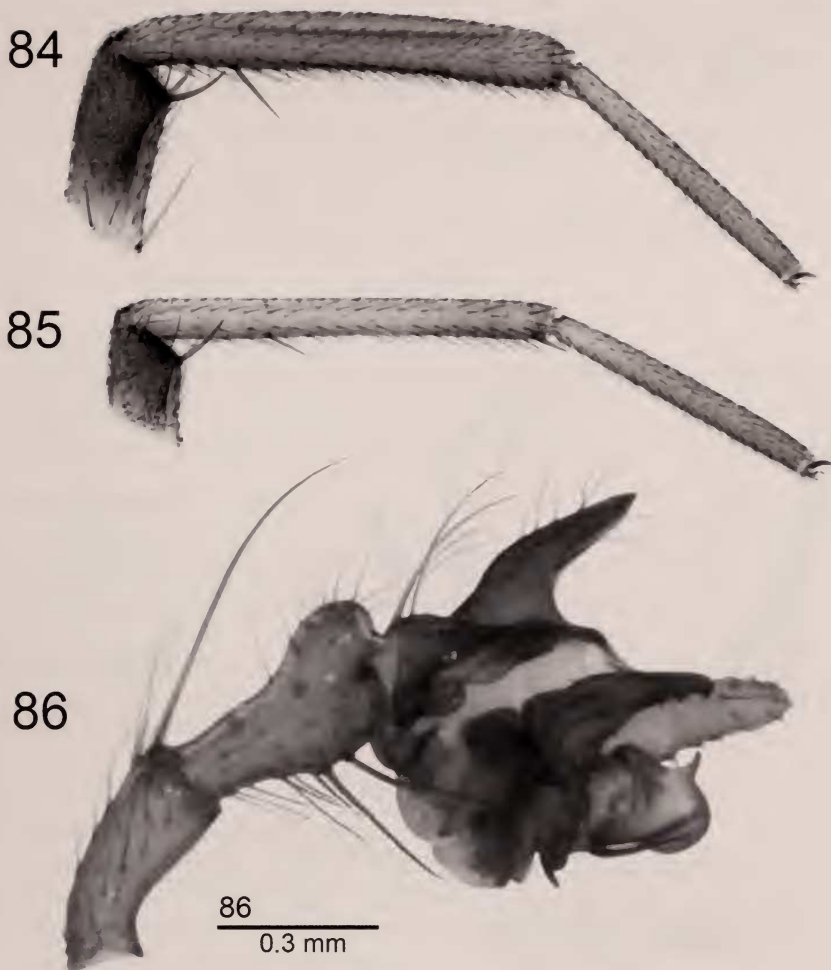
HOLOTYPE: ♂, Turkey, Bursa Province, 20 km from Bursa, 1300 m a.s.l., *Fagus* & *Pinus* forest, sifting litter, 12.V.1976, leg. C. Besuchet & I. Löbl.

PARATYPE: 1 ♂, Turkey, Bursa, Uludağ, above station, 1900-2000 m a.s.l., under stones, 12.V.1976, leg. C. Besuchet & I. Löbl.

ETYMOLOGY: The specific name, an adjective, refers to the shape of the anterior apophysis of the tegulum.

DIAGNOSIS: The species is characterised by the shape of the upper branch of the cymbium, as well as by the saw-toothed anterior tegular apophysis.

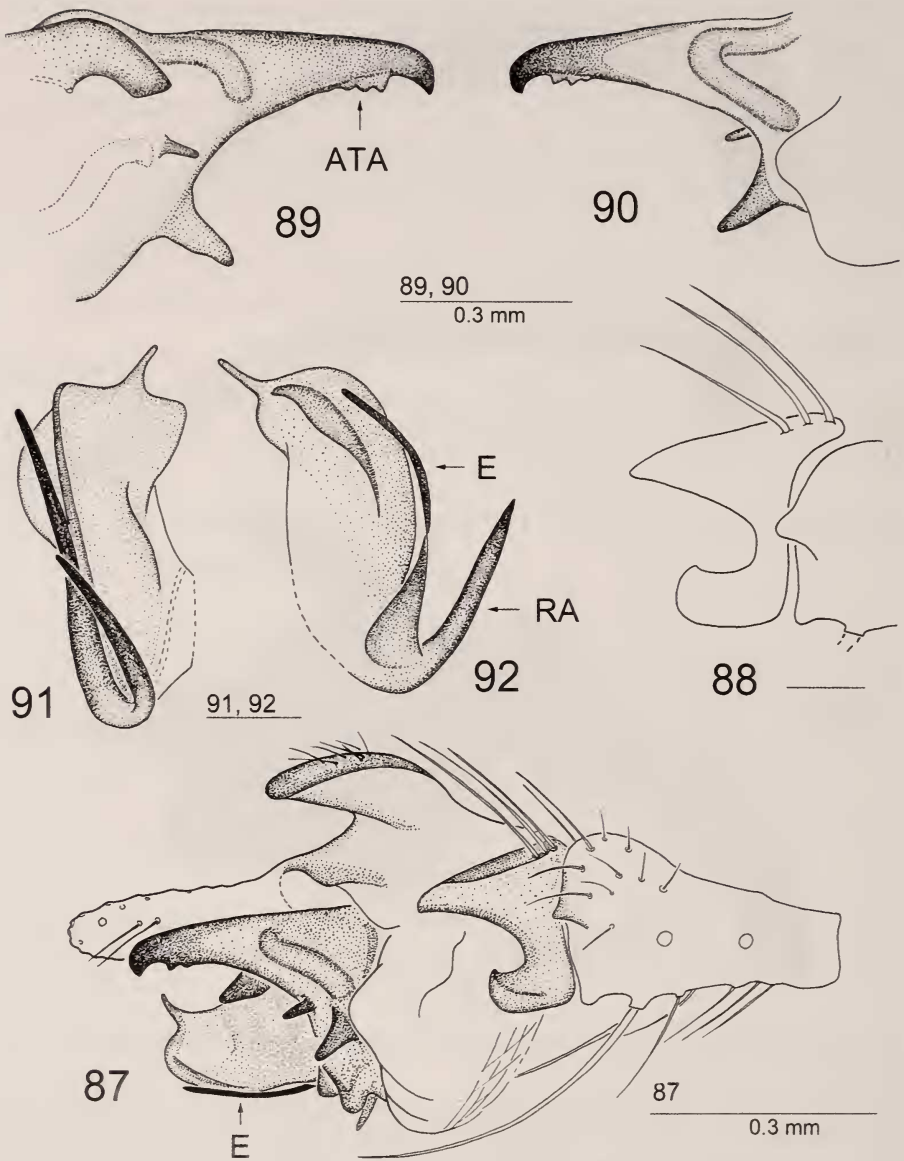
DESCRIPTION: Male paratype. Total length 4.35. Carapace 2.00 long, 1.55 wide, reddish brown, with a narrow grey margin. Chelicerae 0.75 long. Leg I 6.90 long



FIGS 84-86

Stemonyphantes serratus sp. n., ♂ paratype, from Uludağ, Turkey. (84, 85) Metatarsus I and II, respectively. (86) Right palp, retrolateral view.

(1.75+0.65+1.60+1.75+1.15), IV 7.45 long (2.00+0.55+2.00+1.90+1.00). Chaetotaxy: FeI: 2-1-0-0; II-IV: 2-0-0-0; TiI-II: 2-1-1-4, III-IV: 2-1-1-3(4-2); MtI-II: 0-0-0-2, III-IV: 0-1-1-4. MtI twice as thick as MtII, with a narrow groove on dorsal side (Figs 84 & 85). Metatarsus I-IV with a trichobothrium. TmI 0.28. Palp (Figs 86-92): Upper branch of cymbium slightly curved. Paracymbium relatively small, J-shaped, with a row of long stout spines on upper edge. Anterior tegular apophysis with hook-shaped apex and saw-toothed lower edge distally. Radix flattened, with a thin outgrowth anteriorly. Radical apophysis situated near base of embolus, long and stout, highly sclerotized. Embolus slightly shorter than radix, flattened. Abdomen 2.50 long, 1.55 wide, dorsally grey, with a dark median band flanked by paramedian spots connected to it with thin bands.



FIGS 87-92

Stemonyphantes serratus sp. n., ♂ paratype, from Uludağ, Turkey. (87) Left palp, retrolateral view. (88) Paracymbium, lateral view. (89, 90) Tegulum, prolateral and retrolateral view, respectively. (91, 92). Embolic division, different aspects.

TAXONOMIC REMARKS: The new species is similar to *S. abantensis* Wunderlich, 1978 and *S. agnatus* Tanasevitch, 1990, but differs well by its curved upper branch of the cymbium, as well as by its saw-shaped anterior tegular apophysis. *S. serratus* sp. n. together with *S. abantensis*, *S. agnatus* and *S. montanus* Wunderlich, 1978 form

the *abantensis* species-group, which is characterised by a bifid cymbium, a relatively short and stout embolus, the presence of a spear-shaped apophysis on the radix at the base of the embolus (except for *S. montanus*). The *abantensis* species-group is restricted to the Anatolian-Caucasian region.

DISTRIBUTION: The species is known from the type locality only.

***Tapinocyba affinis* (de Lessert, 1907)**

MATERIAL: 1 ♂, Italy, Falzarego, Cortina d'Ampezzo, 25.VI.1967, leg. A. Comellini.

RANGE: European.

***Tapinocyba corsica* (Simon, 1884)**

MATERIAL: 1 ♂, 2 ♀, Italy, Latium, Colli Albani, Mt Cavo, 859-900 m a.s.l., sifting litter under *Corylus avellana* & *Castanea sativa*, 2.-3.II.1980, leg. A. Focarile.

REMARKS: This species is known from Corsica only.

***Tapinocyba maureri* Thaler, 1991**

MATERIAL: 9 ♂, 20 ♀; 4 ♂, 6 ♀ (ZMMU), Italy, Aosta Valley, Porossan, near Aosta, 700 m a.s.l., litter under *Quercus pubescens*, 13.III.1980, leg. A. Focarile [9].

REMARKS: This species is known from Italy and Switzerland only.

***Tapinocyba pallens* (O. P.-Cambridge, 1872)**

MATERIAL: 1 ♂, 6 ♀, Italy, Aosta Valley, Velde, Gressoney, Fontainemore, 1500 m a.s.l., litter under *Alnus viridis*, X.1980, leg. A. Focarile [10].

RANGE: European.

***Tapinocyboides pygmaeus* (Menge, 1869)**

MATERIAL: 1 ♂, Italy, Aosta Valley, Porossan, near Aosta, 700 m a.s.l., litter under *Quercus pubescens*, 13.III.1980, leg. A. Focarile [9].

REMARKS: This species is here reported for the first time for the Italian fauna.

RANGE: West Palaearctic.

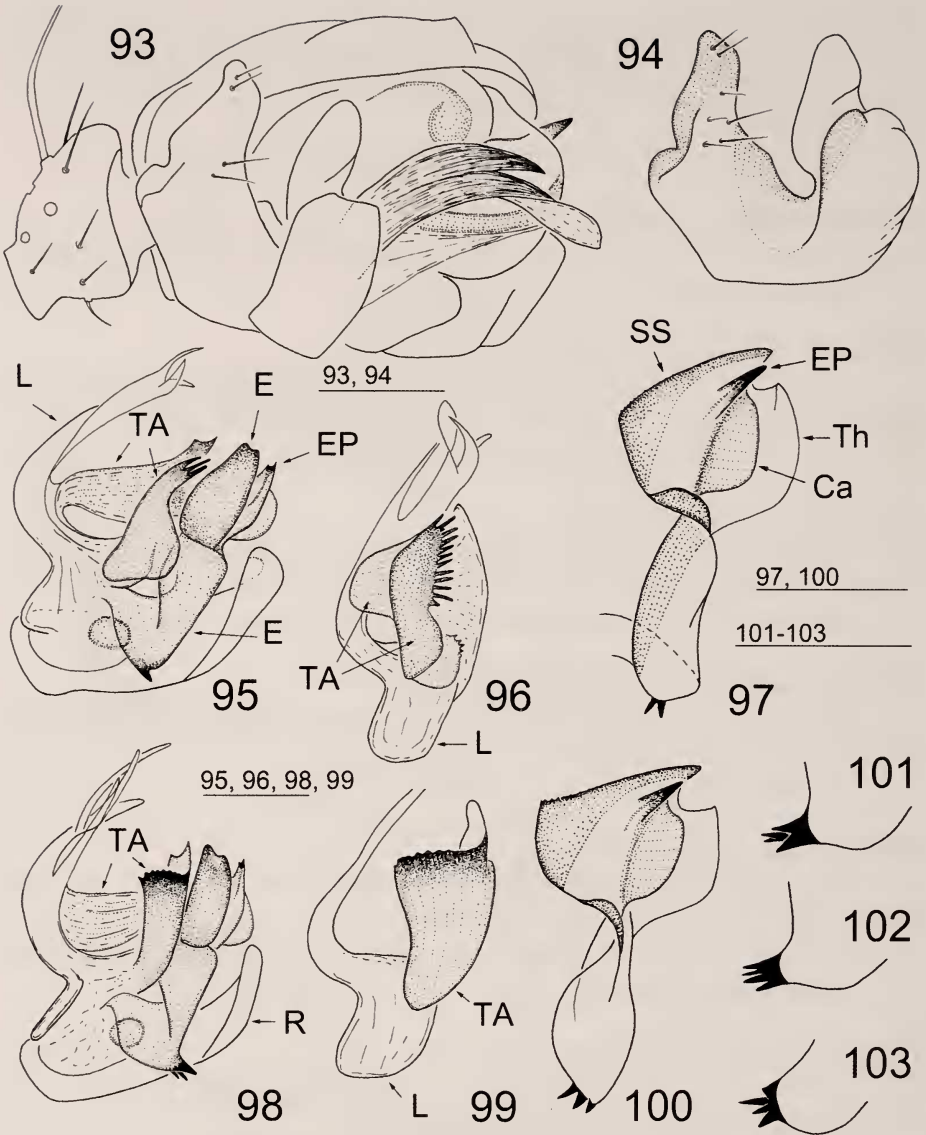
***Tenuiphantes* aff. *aequalis* (Tanasevitch, 1987)**

Figs 93-97

MATERIAL: 1 ♂, Turkey, Artvin Province, above Artvin, 1500 m a.s.l., under stones, 9.VI.1986, leg. C. Besuchet, I. Löbl & D. Burckhardt [11a].

COMPARATIVE MATERIAL EXAMINED: *T. aequalis*, 3 ♂ (CAT), Russia, Caucasus, Republic of Adygeya, environs of Guzeripl', Caucasian Nature Reserve, Mt Abago, *Abies*, *Fagus*, *Acer*, *Betula* etc. forest, up to timberline and in subalpine meadows, 1700-1850 m a.s.l., 24.-26.V.1985, leg. S. Golovatch. – 1 ♂, 1 ♀ (CAT), same locality, 2000 m a.s.l., 27.VII.1974, leg. V. Ovtsharenko. – 1 ♂, 2 ♀ (CAT), same locality, 8.VIII.1974, leg. V. Ovtsharenko. – 1 ♂, 2 ♀ (ZMMU), Russia, Caucasus, Republic of Karachay-Cherkessia, near Teberda (ca 43°27'N, 41°44'E), Teberda Nature Reserve, Mt Malaya Khatipara, IX.2008, leg. F. Martynovchenko.

REMARKS: A single male from Artvin, Turkey has the palpal conformation almost identical to that of the Caucasian *T. aequalis*. The main difference lies in the shape of the terminal apophysis: compare Figs 95, 96 with Figs 98, 99. The examination of material from the Caucasus (see below) has shown that shape of the terminal



FIGS 93-103

Tenuiphantes aff. *aequalis* (Tanasevitch, 1987), ♂ specimen from Artvin, Turkey (93-97), and *Tenuiphantes aequalis* (Tanasevitch, 1987), ♂ specimens from Mt Abago, Russia (98-103). (93) Right palp, retrolateral view. (94) Paracymbium, lateral view. (95, 98) Embolic division. (96, 99) Lamella characteristica and terminal apophysis. (97, 100) Embolus. (101-103) Basal part of embolus.

apophysis in *T. aequalis* is quite stable, but only the number (from three to four) and shape of its teeth on the embolus base are slightly variable (Figs 100-103). In the absence of conspecific female and additional male material, the taxonomic position of the specimen from Artvin is unclear.

Tenuiphantes flavipes (Blackwall, 1854)

MATERIAL: 1 ♀, Italy, Aosta Valley, Porossan, near Aosta, 700 m a.s.l., litter under *Quercus pubescens*, 13.III.1980, leg. A. Focarile [9]. – 1 ♂, Turkey, Kastamonu, between Inebolu and Sure, 10 km from Küre, 700 m a.s.l., *Fagus* forest with *Rhododendron*, sifting litter, 18.V.1976 leg. C. Besuchet & I. Löbl [22].

REMARKS: This species is here reported for the first time for the Turkish fauna.

RANGE: European.

Tenuiphantes herbicola (Simon, 1884)

Figs 104-112

MATERIAL: 3 ♂, 1 ♀, Italy, Tuscany, Mt Argentario, Maremma, 280-400 m a.s.l., sifting litter under *Quercus ilex* & *Q. suber*, 13.-14.II.1980, leg. A. Focarile. – 1 ♂, Greece, Peloponnese, Messenie, Agios Dimitrios/Leuktron, 20.VIII.1970, leg. A. Senglet [7050].

COMPARATIVE MATERIAL EXAMINED: 1 ♂, France, Corsica, 15 km N of L'Île-Rousse, wetland near Ostriconi, pitfall traps, 1.VI.1984 leg. H.G. Müller. – 2 ♂, Corsica, forest of Tartagine, near forest camp, broadleaved forest, pitfall traps, VI.1984, leg. H.G. Müller. – 2 ♀, same locality, from leaf litter, VI.1984, leg. H.G. Müller.

REMARKS: The lamella characteristica in a male from the Peloponnese, Greece differs in shape from those illustrated in the literature (Simon, 1884, 1929; Helsdingen *et al.*, 1977). A small material of *T. herbicola* from Tuscany and Corsica has shown that the shape of the lamella characteristica is really somewhat variable, but the main reason of variation for such differences lies in the different angles at which the specimens were illustrated. The shape of the posterior median plate of the epigyne is indeed different in two samples from the same population.

This species is here reported for the first time for the Greek fauna.

Tenuiphantes tenebricola (Wider, 1834)

MATERIAL: 1 ♀, Italy, Piemont Province, Cuneo, Mt Antorovo, 1700 m a.s.l., litter under *Alnus viridis*, 16.VI.1982, leg. A. Focarile [13]. – 1 ♂, 2 ♀, Lombardia, Verese Province, Mt Campo, 1100 m a.s.l., litter under *Corylus*, V.1982, leg. A. Focarile [13].

RANGE: East Palaearctic.

Tenuiphantes tenuis (Blackwall, 1852)

MATERIAL: 1 ♀, Greece, Naupactus, 14.IV.1979, leg. S. Vit. – 1 ♂, Crete, Rethimnon, Axos/Anogia, 3.VII.1970, leg. A. Senglet [7013]. – 1 ♀, Dariviana (35°13'N, 24°31'E), 2.X.1999, leg. A. Senglet. – 7 ♂, 14 ♀; 2 ♀ (ZMMU), Cyprus, Cedar Valley, 1200 m a.s.l., sifting litter under fern, 24.VII.1977, leg. C. Besuchet [42]. – 3 ♂, 4 ♀, same locality, 18.VII.1977, leg. C. Besuchet [27b]. – 1 ♂, 4 ♀, same locality, 15.VII.1977, leg. C. Besuchet [19]. – 1 ♀, above Ayia, 950 m a.s.l., sifting litter under *Pinus*, 12.VII.1977, leg. C. Besuchet [11a]. – 1 ♀, Limassol District, Ayios Dimitrios, 700 m a.s.l., sifting litter, 9.VII.1977, leg. S. Vit [c/15]. – 1 ♀, Nicosia, Alonoudhi Junction, 600 m a.s.l., sifting litter under *Platanus*, 15.VII.1977, leg. S. Vit [c/27]. – 1 ♀, same locality, irrigation canal, 10.VII.1977, leg. S. Vit.

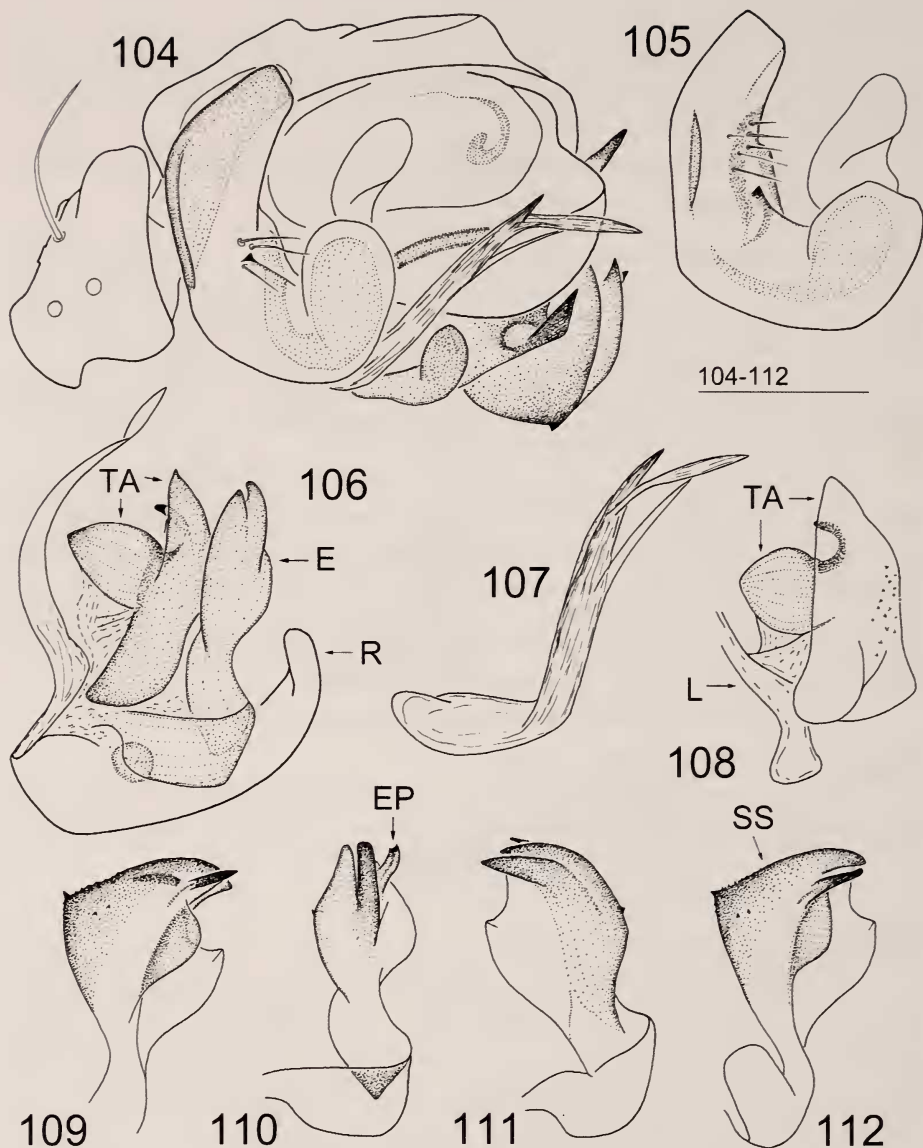
REMARKS: This species is here reported for the first time for the Cypriot fauna.

RANGE: European-Ancient Mediterranean. Introduced to New Zealand (Millidge, 1988), to Chili and Argentina (Millidge, 1991), as well as to North America (Paquin *et al.*, 2010).

Troxochrus apertus sp. n.

Figs 113-124

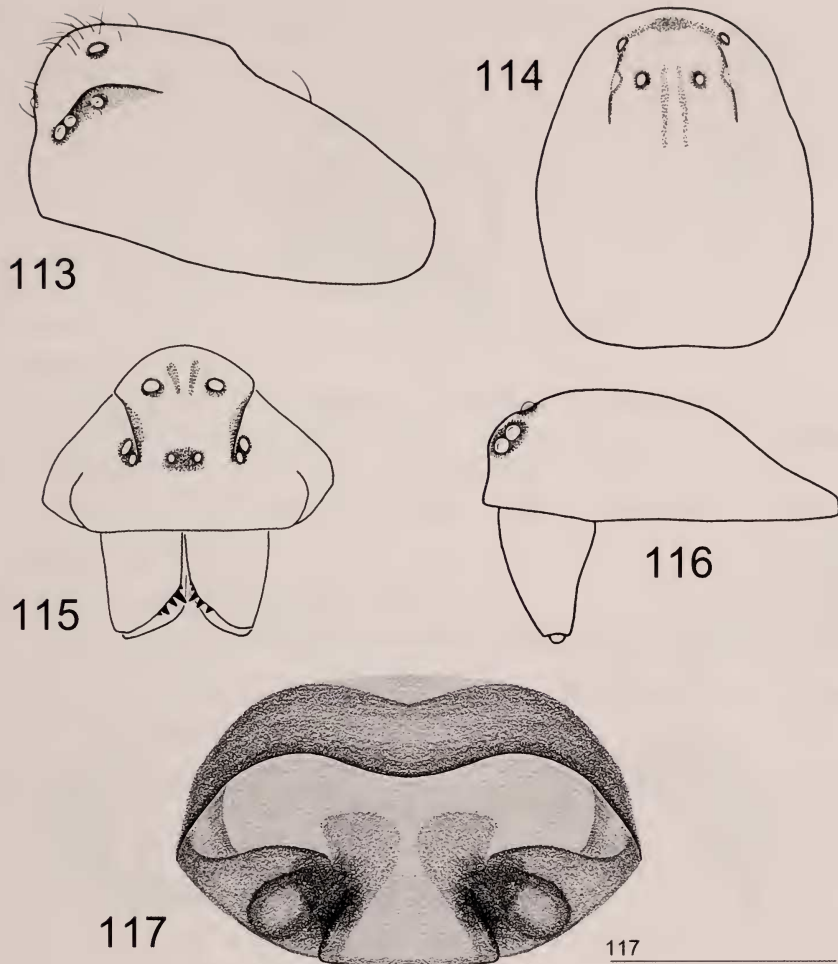
HOLOTYPE: ♂, Greece, Rhodes, Mt Kariona, 6 km W of Apollona, 400 m a.s.l., sifting litter under *Platanus*, 13.IV.1977, leg. C. Besuchet [13].



FIGS 104-112

Tenuiphantes herbicola (Simon, 1884), ♂ from Greece, Peloponnese. (104) Right palp, retro-lateral view. (105) Paracymbium, lateral view. (106) Embolic division. (107) Lamella characteristica. (108) Base of lamella characteristica and terminal apophysis. (109-112) Embolus, different aspects.

PARATYPES: 1 ♂, 14 ♀; 1 ♂, 5 ♀ (ZMMU), collected together with holotype, 13.IV.1977, leg. C. Besuchet [13]. - 3 ♀, same locality, 11.IV.1977, leg. C. Besuchet [8b]. - 4 ♀, 2 km SW of Ebonas, sifting moss and litter in ravine, 15.IV.1977, leg. C. Besuchet [15b]. - 2 ♀, Epta Pigai, sifting moss and litter in ravine, 9.IV.1977, leg. C. Besuchet [3b]. - 1 ♀, Samos, between

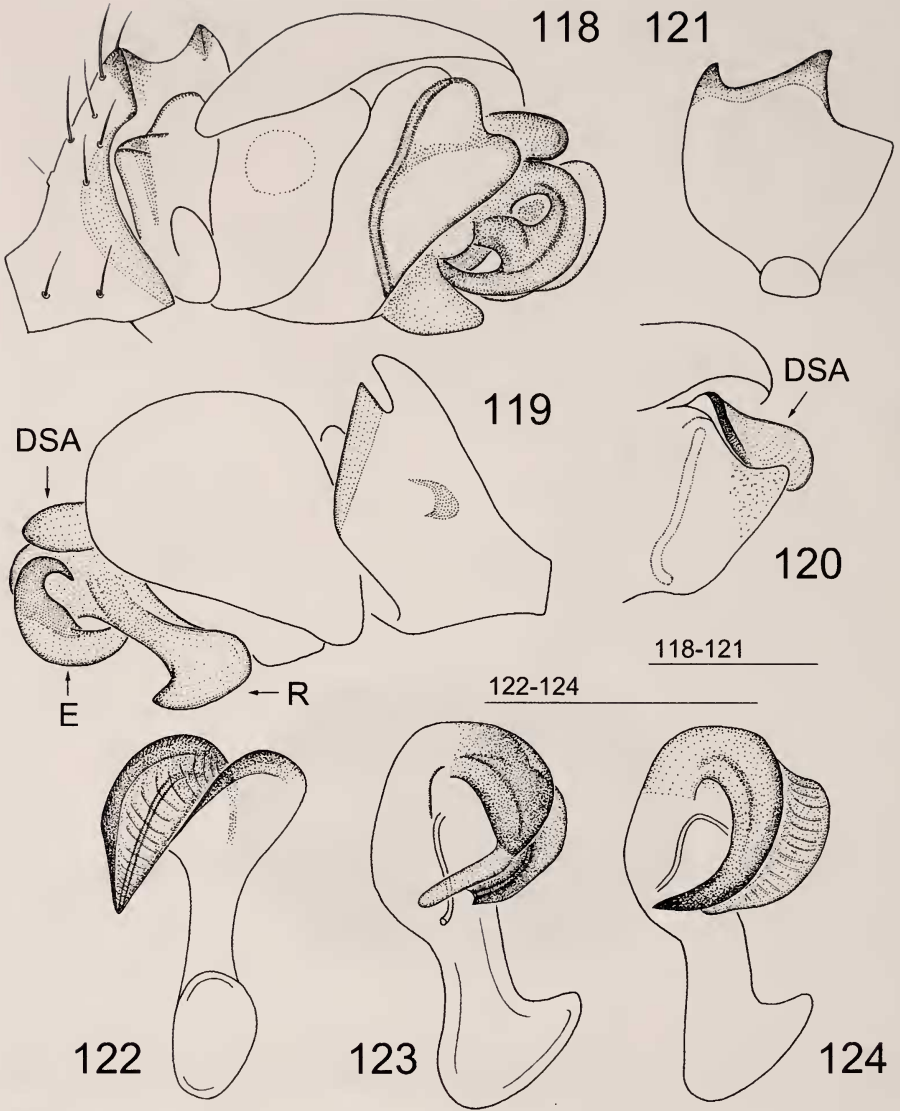


FIGS 113-117

Troxochrus apertus sp. n., ♂ paratype from Samos, Greece (113-115), and ♀ paratype from Apollona, Greece (116, 117). (113-116) Carapace, lateral view (113, 116), dorsal view (114), and frontal view (115). (117) Epigyne, ventral view.

Leka and Kastanea, near cloister "Agios Trias", 200 m a.s.l., sifting litter under *Platanus* & *Cupressus*, 16.V.1985, leg. C. Besuchet [8b]. – 1 ♂ (ZMMU), Samos, route Kambos (E of Aghios Konstantinos) - Vourliotes, above cloister "Moni Vronda", in soil under *Pinus* sp., 520 m a.s.l., 26.XI.1991, leg. B. Hauser [ZS-91/64]. – 1 ♂, 2 ♀, Turkey, Adana, Karatepe, near Kadirli, 200 m a.s.l., 1.V.1978, leg. C. Besuchet & I. Löbl [15]. – 1 ♀, same locality, 1.V.1978, leg. C. Besuchet & I. Löbl [15]. – 1 ♀, Mersin, route to Arslankoy Aladay (36°56'20N, 34°30'12E), 830 m a.s.l., 2.V.2004, leg. C. Besuchet [34]. – 1 ♀, Antalia, 12 km N of Manavgat, 26.IV.1978, leg. C. Besuchet & I. Löbl [2]. – 1 ♀, Chaine Ak Daglari, Fethiye, 900 m a.s.l., sifting litter, 11.IV.1993, leg. S. Vit [4]. – 1 ♂, Fethiye, Sinekcbeli Pass, 1000 m a.s.l., under stones, 11.IV.1993, leg. S. Vit [5].

ETYMOLOGY: The species name, an adjective, refers to the shape of the epigyne.



FIGS 118-124

Troxochrus apertus sp. n., ♂ paratype from Samos, Greece. (118, 119) Right palp, retrolateral and prolateral view, respectively. (120) Distal part of palp. (121) Palpal tibia, dorsal view. (122-124) Embolic division, different aspects.

DIAGNOSIS: The new species is characterised by the peculiar shape of the embolic division, as well as by the large and wide aperture of the epigyne.

DESCRIPTION: Male paratype. Total length 1.34. Carapace modified as shown in Figs 113-115, 0.63 long, 0.50 wide, yellow to pale brown. Chelicerae 0.25 long, un-

modified. Legs yellow. Leg I 1.58 long (0.48+0.19+0.38+0.28+0.25), IV 1.54 long (0.43+0.20+0.38+0.29+0.24). Chaetotaxy: 1.1.1.1, spines scarcely visible, very thin and short, about half of diameter of segment. TmI 0.50. Metatarsus IV without richobothrium. Palp (Figs 118-124): Palpal tibia as long as wide, with two slanting sharpened outgrowths. Paracymbium relatively small and narrow, C-shaped. Distal supratetral apophysis short and wide, rounded distally. Embolic part of embolic division wide and coiled. Abdomen 0.70 long, 0.50 wide, white to pale grey.

Female. Total length 1.50. Carapace as shown in Fig. 116, 0.65 long, 0.50 wide. Chelicerae 0.25 long. Leg I 1.54 long (0.48+0.20+0.38+0.25+0.23), IV 1.60 long (0.50+0.19+0.38+0.29+0.24). TmI 0.50. Abdomen 0.93 long, 0.650 wide. Epigyne large, aperture wide, with a rounded "visor" hanging over epigynal cavity (Fig. 117). Body and leg coloration, as well as chaetotaxy, as in male.

TAXONOMIC REMARKS: The new species clearly differs from other congeners by the peculiar shape of the embolus, as well as by the very large aperture and the presence of a rounded "visor" hanging over the epigynal cavity.

DISTRIBUTION: Turkish and Greek islands near the western coast of Turkey.

RANGE: Anatolian.

Typhochrestus chiosensis Wunderlich, 1995

MATERIAL: 2 ♂, 2 ♀, Turkey, Ankara, Gölbaşı, sifting humus, 750 m a.s.l., 29.X.1995, leg. S. Vit [1].

REMARKS: This species was hitherto known from Greece only. It is here reported for the first time for the Turkish fauna.

Typhochrestus ikarianus sp. n.

Figs 125-129

HOLOTYPE: ♂, Greece, Ikaria, route Monokampi - Evidilos, near Monokampi, 400 m a.s.l., 22.XI.1991, leg. B. Hauser [ZS-91/39].

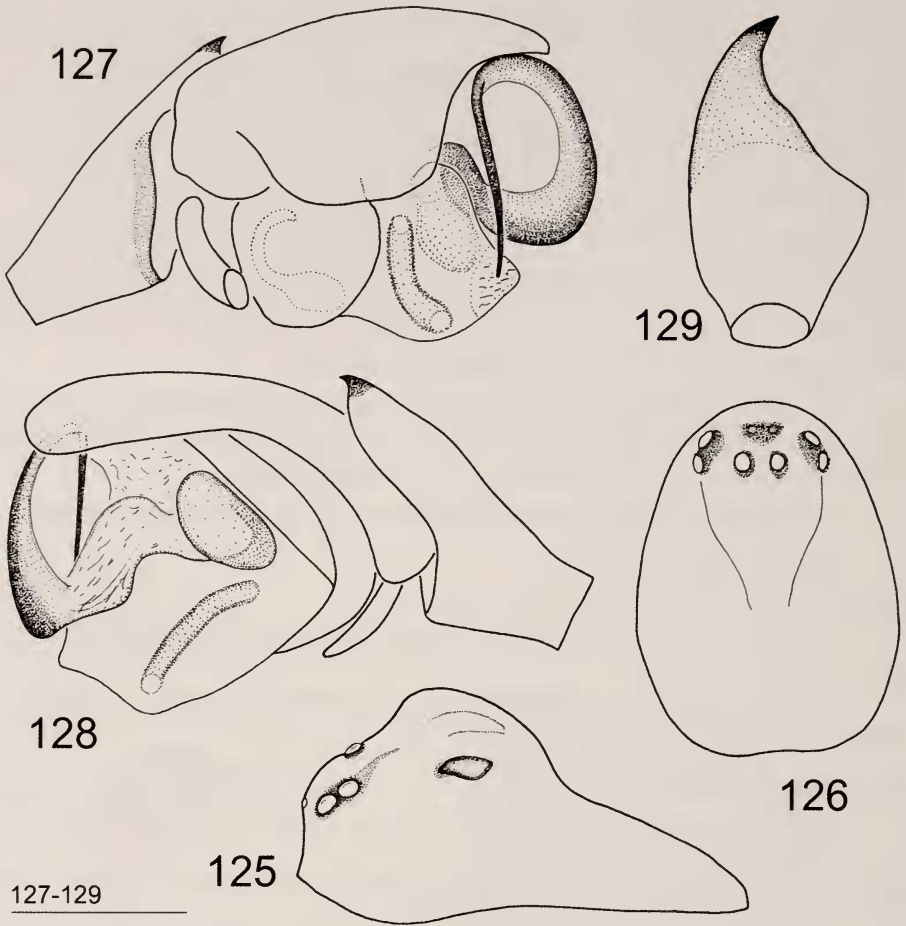
PARATYPE: 1 ♂, Greece, Ikaria, route Aghios Kirykos - Oxea, near Oxea, under stones, 500 m a.s.l., 22.XI.1991, leg. B. Hauser [ZS-91/37].

ETYMOLOGY: The specific name, an adjective, is derived from the name of the Greek island where the new species was found.

DIAGNOSIS: The species is characterised by the shape of the palpal tibia and the absence of the anterior radical process in the embolic division.

DESCRIPTION: Male paratype. Total length 1.58. Carapace modified as shown in Figs 125 & 126, 0.75 long, 0.53 wide, pale brown with indistinct radial bands. Chelicerae 0.20 long, unmodified. Both holotype and paratype have white, almost transparent (probably bleach) legs. Leg I 2.10 long (0.60+0.15+0.60+0.45+0.30), IV 2.18 long (0.60+0.18+0.60+0.50+0.30). Chaetotaxy unclear because spines lost. Trichobothria on legs not found. Palp (Figs 127-129): Distal part of palpal tibia elongated and claw-shaped. Protegulum conical, membraneous. Radix without anterior radical process. Embolus with a wide membraneous edge, coiled. Abdomen 0.83 long, 0.55 wide, grey.

TAXONOMIC REMARKS: The new species belongs to a group of species which is characterized by the absence of the tail-shaped anterior radical process and seems to be



FIGS 125-129

Typhochrestus ikarianus sp. n., ♂ paratype from Oxea, Greece. (125, 126) Carapace, lateral and dorsal view, respectively. (127, 128) Right palp, retrolateral and prolateral view, respectively. (129) Palpal tibia, dorsal view.

most similar to *T. simoni* Lessert, 1907, but well distinguished by the shape of the palpal tibia and by the absence of the lateral tooth on it.

DISTRIBUTION: Known from Ikaria Island only.

Walckenaeria alticeps (Denis, 1952)

MATERIAL: 1 ♀, Cyprus, Ayios Dhimitrios, 600 m a.s.l., sifting litter under *Quercus*, 9.VII.1977, leg. C. Besuchet [2a]. – 1 ♂, 3 ♀, near Ayios Dhimitrios, sifting moss and litter, 11.IV.1981, leg. C. Besuchet [12b]. – 1 ♀, Cedar Valley, 1200 m a.s.l., sifting litter under fern, 4.VII.1977, leg. C. Besuchet [42]. – 1 ♀, Nicosia, Alonoudhi Junction, 600 m a.s.l., litter under *Platanus*, 15.VII.1977, leg. S. Vit [c/27]. – 1 ♀, Turkey, Adana, 11 km SW of Pozanti, near Tekir, 1000 m a.s.l., sifting litter, 30.IV.1978, leg. C. Besuchet & I. Löbl [13a].

REMARKS: This species is here reported for the first time for the Cypriot and Turkish faunas.

RANGE: West Palaearctic.

Walckenaeria atrotibialis (O. P.-Cambridge, 1878)

MATERIAL: 1 ♀, Turkey, Bursa Province, near Bursa, 500 m a.s.l., *Quercus* forest with *Pinus* & *Castanea*, sifting litter, 12.V.1976, leg. C. Besuchet & I. Löbl [3]. – 1 ♂, Kastamonu, 13 km E of Agli, 1200 m a.s.l., *Quercus* forest with *Pinus*, sifting litter, 18.V.1976, leg. C. Besuchet & I. Löbl [25b].

RANGE: West Palaearctic-Nearctic.

Walckenaeria cuspidata Blackwall, 1833

MATERIAL: 1 ♀, Italy, Aosta Valley, near Rutor Glacier, 2100 m a.s.l., IX.1982, leg. A. Focarile [6].

RANGE: Palaearctic.

Walckenaeria cyprusensis Wunderlich, 1995

MATERIAL: 1 ♂, Cyprus, above Ayios Dhimitrios, sifting litter under *Platanus*, *Alnus* & *Quercus* in ravine, 11.IV.1981, leg. C. Besuchet [12b].

REMARKS: This species is known from Cyprus only.

Walckenaeria incisa (O. P.-Cambridge, 1871)

MATERIAL: 1 ♀, Greece, Attika, E of Mt Parnis, 400 m a.s.l., litter, 5.IV.1983, leg. S. Vit [19].

REMARKS: This species is here reported for the first time for the Greek fauna.

RANGE: European.

Walckenaeria monoceros (Wider, 1834)

MATERIAL: 1 ♀, Greece, Cyclades, Iraklia, cave "Aghio Ioannis", 100 m a.s.l., 11.V.1985, leg. B. Hauser [Nax-85/23].

RANGE: European-Ancient Mediterranean.

Walckenaeria stylifrons (O. P.-Cambridge, 1875)

MATERIAL: 1 ♀, Greece, Ikaria, along route Aghios Kirykos - Oxea, near Oxea, 500 m a.s.l., under stones, 22.XI.1991, leg. B. Hauser [ZS-91/37]. – 1 ♀, Samos, route Kambos - Vourliotes, above cloister "Moni Vronda", in soil under *Pinus* sp., 520 m a.s.l., 26.XI.1991, leg. B. Hauser [ZS-91/64].

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